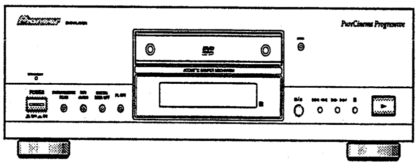
Pioneer

Service Manual



ORDER NO.
RRV2422

DVD PLAYER

DV-38A
DV-S88A
DV-S838A
DV-939A

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model				Power Requirement	Region No.	Remarks
	DV-38A	DV-S88A	DV-S838A	DV-939A			
KU/CA	○	–	–	–	AC120V	1	
LB	–	○	–	–	AC110V	3	
WL	–	–	○	–	AC220-240V	3	
WL/RD	–	–	○	–	AC220-240V	4	
WY	–	–	–	○	AC220-240V	2	

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols ▮⊞ (fast operating fuse) and/or ▮⊠ (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible ▮⊞ (fusible de type rapide) et/ou ▮⊠ (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

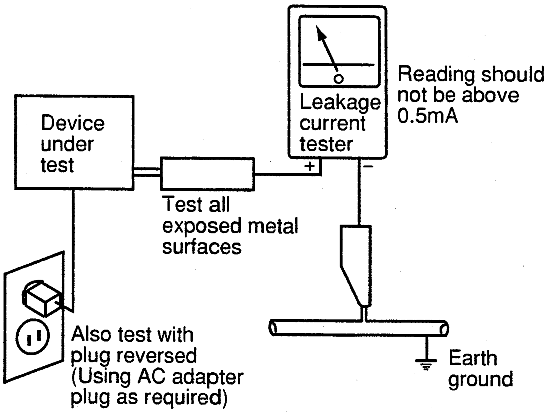
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

WARNING !

THE AEL (ACCESSIBLE EMISSION LEVEL) OF THE LASER POWER OUTPUT IS LESS THAN CLASS 1 BUT THE LASER COMPONENT IS CAPABLE OF EMITTING RADIATION EXCEEDING THE LIMIT FOR CLASS 1.

A SPECIALLY INSTRUCTED PERSON SHOULD DO SERVICING OPERATION OF THE APPARATUS.

LASER DIODE CHARACTERISTICS

FOR DVD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 655 nm
FOR CD : MAXIMUM OUTPUT POWER : 5mW
WAVELENGTH : 785 nm

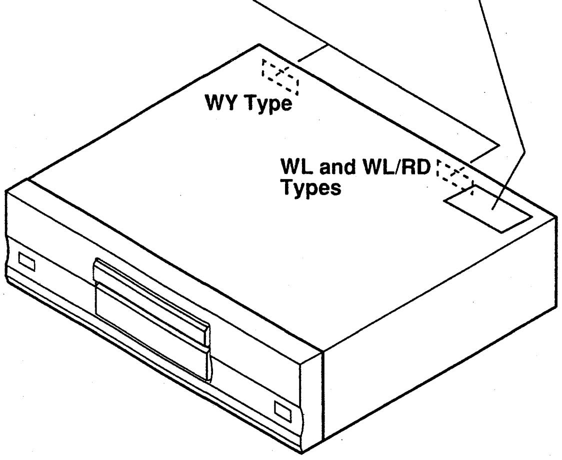
LABEL CHECK (For WL, WL/RD and WY Types)

CAUTION :	*VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.*
VORSICHT :	*SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN!*
ADVARSEL :	*SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÅLING.*
VARNING :	*SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRAKTA EJ STRÅLEN.*
VARO! :	*AVATTAESSA ALTISTUT NÄKYVÄ JA NÄKYMÄTTÖMÄLLE LASERSATEIL YLLE. ÄLÄ KATSO SÄTEESEN.*

VRW1699

(Printed on the Rear Panel)

CLASS 1
LASER PRODUCT



Additional Laser Caution

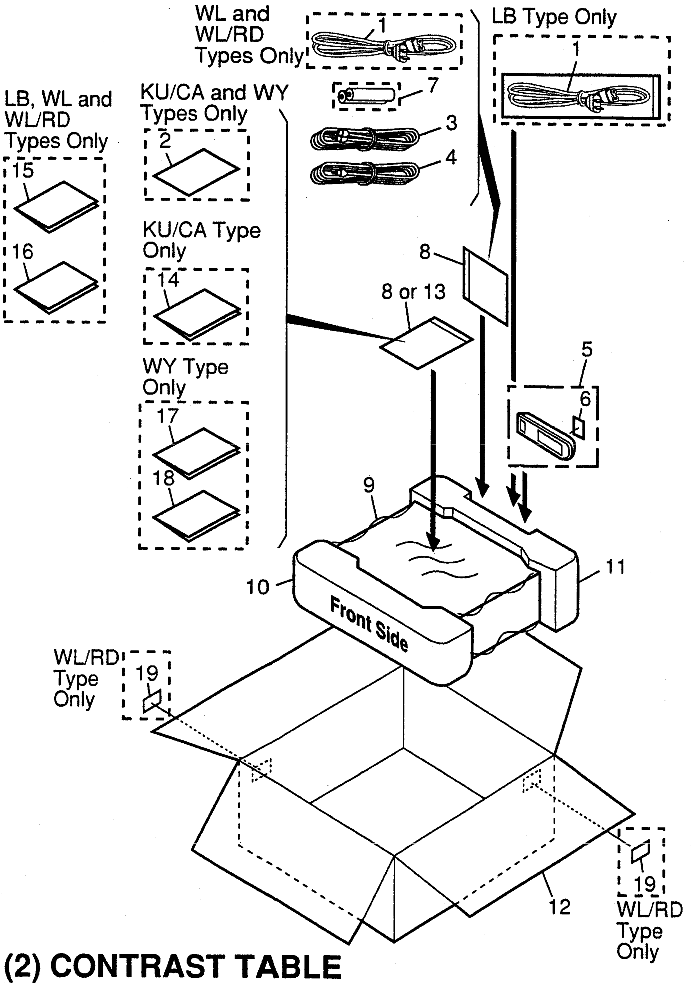
1. Inside detection switch (S201 on the SMEB assy) and loading-status detection switch (S301 on the LOSB assy) are detected by the microprocessor (IC601 in the DVDM assy).
   - To permit the laser diode to oscillate, it is required to set the inside detection switch for the inside position (S201 : ON) and to set the loading-status detection switch for the clamp position (the center terminal of S301 is shorted to +5V). The 650 nm laser diode for DVD oscillation will continue if pin 19 of IC101 is shorted to +5V (fault condition) in the DVDM assy. The 780 nm laser diode for CD oscillates if pin 20 of IC101 is shorted to +5V in the DVDM assy.
     In the test mode ✻ , the laser diode oscillates when microprocessor detects a PLAY signal, or when the PLAY key is pressed (S106 ON in the FLKY assy), with the above requirements satisfied.
2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to the laser beam.

✻ : See page 71.

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



(1) PACKING PARTS LIST

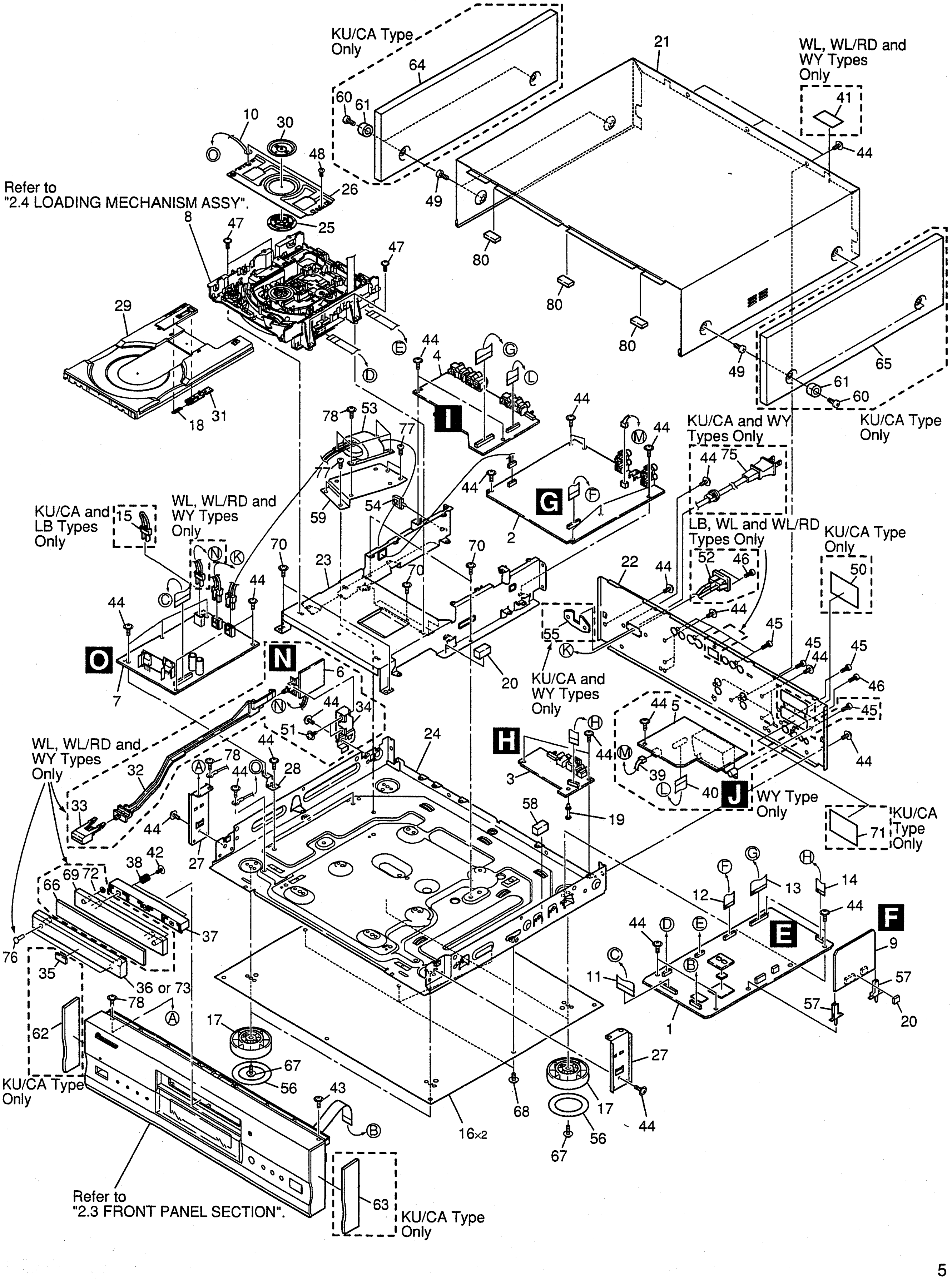
Mark	No.	Description	Part No.
⚠	1	Power Cord	See Contrast table (2)
NSP	2	Warranty Card	See Contrast table (2)
	3	Audio Cord (L = 1.5m)	VDE1033
	4	Video Cord (L = 1.5m)	VDE1034
	5	Remote Control Unit	See Contrast table (2)
	6	Battery Cover	See Contrast table (2)
NSP	7	Dry Cell Battery (R6P, AA)	VEM-013
NSP	8	Polyethylene Bag (0.03×230×340)	Z21-038
	9	MIrror Mat Sheet	See Contrast table (2)
	10	Pad F	See Contrast table (2)
	11	Pad R	See Contrast table (2)
	12	Packing Case	See Contrast table (2)
	13	Polyethylene Bag B5	See Contrast table (2)
	14	Operating Instructions (English)	See Contrast table (2)
	15	Operating Instructions (English)	See Contrast table (2)
	16	Operating Instructions (Trad-Chinese)	See Contrast table (2)
	17	Operating Instructions (English / French / German / Italian)	See Contrast table (2)
	18	Operating Instructions (Dutch / Swedish / Spanish / Danish)	See Contrast table (2)
	19	Region Label P4	See Contrast table (2)

(2) CONTRAST TABLE

DV-38A/KU/CA, DV-S88A/LB, DV-S838A/WL, WL/RD and DV-939A/WY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.					Remarks
			DV-38A /KU/CA	DV-S88A /LB	DV-S838A /WL	DV-S838A /WL/RD	DV-939A /WY	
⚠	1	Power Cord	Not used	VDG1081	ADG1127	ADG1127	Not used	
NSP	2	Warranty Card	ARY1026	Not used	Not used	Not used	ARY7022	
	5	Remote Control Unit	VXX2714	VXX2628	VXX2628	VXX2628	VXX2628	
	6	Battery Cover	VNK4423	VNK4677	VNK4677	VNK4677	VNK4677	
	9	Mirror Mat Sheet	VHL1012	RHX1006	RHX1006	RHX1006	VHL1012	
	10	Pad F	VHA1273	VHA1271	VHA1271	VHA1271	VHA1271	
	11	Pad R	VHA1274	VHA1272	VHA1272	VHA1272	VHA1272	
	12	Packing Case	VHG2035	VHG2032	VHG2033	VHG2033	VHG2031	
	13	Polyethylen Bag B5	Not used	VHL1051	VHL1051	VHL1051	Not used	
	14	Operating Instructions (English)	VRB1256	Not used	Not used	Not used	Not used	
	15	Operating Instructions (English)	Not used	VRB1257	VRB1257	VRB1257	Not used	
	16	Operating Instructions (Trad-Chinese)	Not used	VRC1122	VRC1122	Not used	Not used	
	17	Operating Instructions (English / French / German / Italian)	Not used	Not used	Not used	Not used	VRE1087	
	18	Operating Instructions (Dutch / Swedish / Spanish / Danish)	Not used	Not used	Not used	Not used	VRF1056	
	19	Region Label P4	Not used	Not used	Not used	VRW1705	Not used	

2.2 EXTERIOR SECTION


KU/CA Type Only
64
60
61
21
WL, WL/RD and WY Types Only
41
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Refer to "2.4 LOADING MECHANISM ASSY".
8
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KU/CA and WY Types Only
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KU/CA Type Only
KU/CA and LB Types Only
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WL, WL/RD and WY Types Only
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G
F
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LB, WL and WL/RD Types Only
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KU/CA Type Only
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K
KU/CA and WY Types Only
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J
WY Type Only
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WL, WL/RD and WY Types Only
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71
KU/CA Type Only
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66
69
72
37
F
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G
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H
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36 or 73
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A
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B
27
17
44
68
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67
16×2
KU/CA Type Only
Refer to "2.3 FRONT PANEL SECTION".
63
KU/CA Type Only

(1) EXTERIOR SECTION PARTS LIST

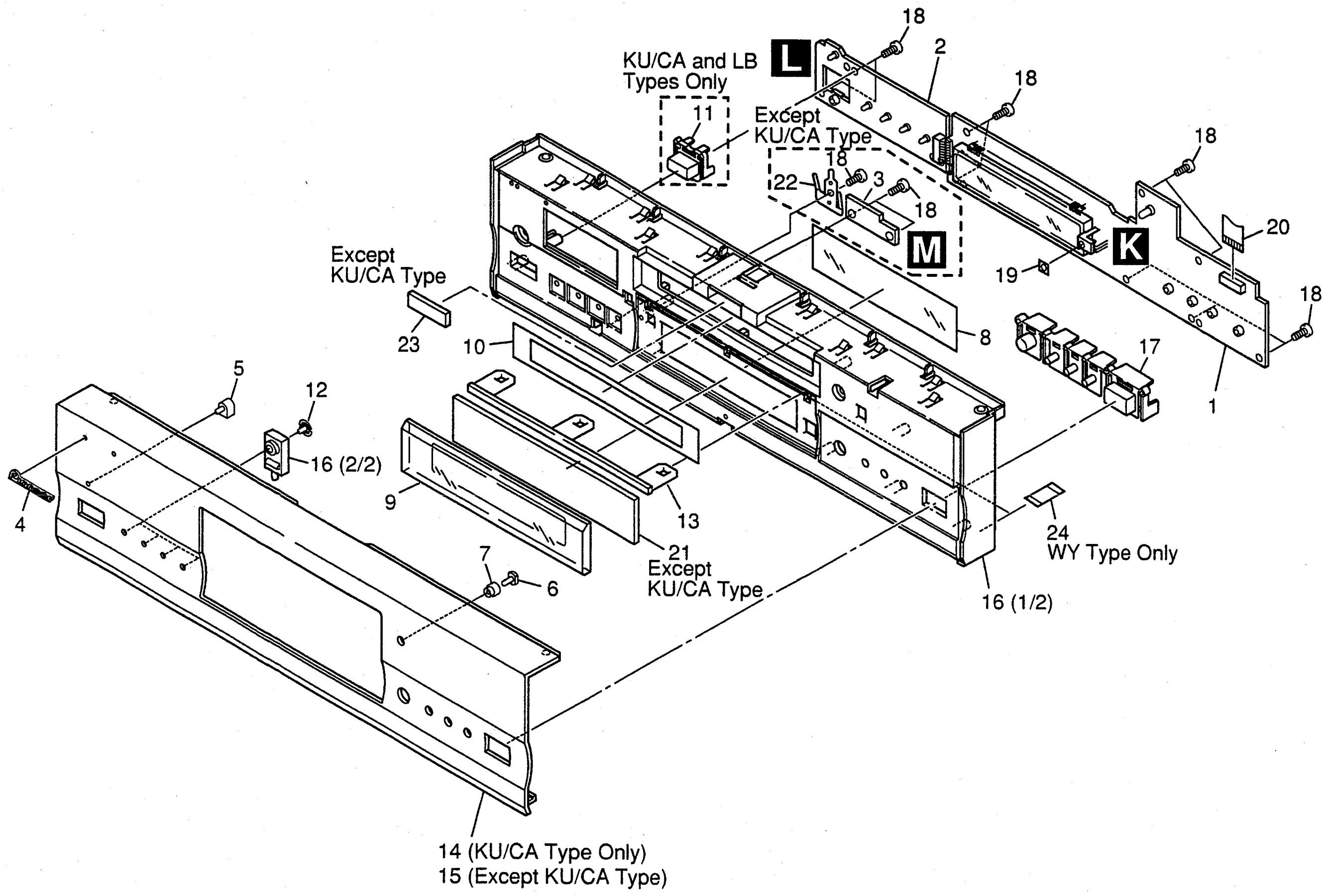
Mark	No.	Description	Part No.
	1	DVDM Assy	See Contrast table (2)
	2	AJKB Assy	See Contrast table (2)
	3	DJKB Assy	See Contrast table (2)
	4	VJKB Assy	See Contrast table (2)
	5	SCRB Assy	See Contrast table (2)
NSP	6	MSWB Assy	See Contrast table (2)
⚠	7	POWER SUPPLY Unit	VWR1333
NSP	8	Loading Mechanism Assy	VWT1180
	9	DSPB Assy	VWG2212
NSP	10	Earth Lead Wire	DE012VF0
	11	Flexible Cable (28P)	VDA1845
	12	Flexible Cable (20P)	VDA1850
	13	Flexible Cable (28P)	VDA1848
	14	Flexible Cable (12P)	VDA1849
⚠	15	Housing Assy	See Contrast table (2)
NSP	16	Bottom Plate	PNA2376
	17	Insulator	PNW2766
	18	Tray Stopper Spring	VBH1277
	19	Mini Card Spacer	VEC2173
	20	Cushion	VEC2174
	21	Bonnet S	See Contrast table (2)
	22	Rear Panel	See Contrast table (2)
NSP	23	Sub Chassis	See Contrast table (2)
NSP	24	Chassis	VNA2246
	25	Clamper Plate	VNE2068
	26	Bridge	VNE2069
NSP	27	Panel Stay	VNE2156
NSP	28	PCB Stay	VNE2214
	29	Tray	See Contrast table (2)
	30	Clamper	VNL1738
	31	Tray Stopper	VNL1739
	32	Power Joint	See Contrast table (2)
	33	Power Button	See Contrast table (2)
NSP	34	Switch Holder	See Contrast table (2)
	35	DVD Badge	See Contrast table (2)
	36	Door Panel	See Contrast table (2)
	37	Door Holder	See Contrast table (2)
	38	Door Spring	VBH1331
	39	Connector Assy	See Contrast table (2)
	40	Flexible Cable (20P)	See Contrast table (2)
	41	Caution Label	See Contrast table (2)
	42	Screw	VBA1057
	43	Screw	VBA1081
	44	Screw	IBZ30P060FCC
	45	Screw	BBZ30P080FCC
	46	Screw	BBZ30P100FZK
	47	Screw	BBZ30P100FMC
	48	Screw	BPZ26P080FZK
	49	Screw	See Contrast table (2)
	50	Label	See Contrast table (2)
	51	Screw	See Contrast table (2)
⚠	52	AC Inlet Assy	See Contrast table (2)
⚠	53	R Core Transformer	See Contrast table (2)
NSP	54	Locking Wire Saddle	DEC1845
	55	AC Cord Spacer	See Contrast table (2)
	56	Cushion 55	See Contrast table (2)
	57	Card Corner Holder	PNW2343
	58	Cushion	VEC2175
NSP	59	Trans. Plate	VNE2231
	60	Screw	See Contrast table (2)
	61	Wood Collor	See Contrast table (2)
	62	Gold Maul L	See Contrast table (2)
	63	Gold Maul R	See Contrast table (2)
	64	Side Wood L	See Contrast table (2)
	65	Side Wood R	See Contrast table (2)
	66	Door Plate	See Contrast table (2)
	67	Screw	ABA1052
	68	Screw	IBZ30P080FCC
	69	Door Base	See Contrast table (2)
	70	Screw	BBP30P080FMC
	71	Fuse Caution Label	See Contrast table (2)
	72	Stop Ring	See Contrast table (2)
	73	Door	See Contrast table (2)
	74	•••••	
⚠	75	Power Cord	See Contrast table (2)
	76	Rivet	See Contrast table (2)
	77	Screw	BBT30P060FZK
	78	Screw	IBP30P090FCC
	79	•••••	
	80	Cushion B	VEB1311

(2) CONTRAST TABLE

DV-38A/KU/CA, DV-S88A/LB, DV-S838A/WL, WL/RD and DV-939A/WY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.					Remarks
			DV-38A /KU/CA	DV-S88A /LB	DV-S838A /WL	DV-S838A /WL/RD	DV-939A /WY	
	1	DVDM Assy	VWS1421	VWS1421	VWS1424	VWS1424	VWS1425	
	2	AJKB Assy	VWV1763	VWV1763	VWV1763	VWV1763	VWV1764	
	3	DJKB Assy	VWV1797	VWV1797	VWV1798	VWV1798	VWV1798	
	4	VJKB Assy	VWV1853	VWV1852	VWV1852	VWV1852	VWV1854	
	5	SCRB Assy	Not used	Not used	Not used	Not used	VWV1793	
NSP	6	MSWB Assy	Not used	Not used	VWG2247	VWG2247	VWG2247	
⚠	15	Housing Assy	VKP2259	VKP2189	Not used	Not used	Not used	
	21	Bonnet S	VXX2758	VXX2617	VXX2617	VXX2617	VXX2617	
	22	Rear Panel	VNA2232	VNA2235	VNA2238	VNA2293	VNA2230	
NSP	23	Sub Chassis	VNA2233	VNA2233	VNA2233	VNA2233	VNA2217	
	29	Tray	VNK4244	VNK4243	VNK4243	VNK4243	VNK4243	
	32	Power Joint	Not used	Not used	VNK4327	VNK4327	VNK4327	
	33	Power Button	Not used	Not used	VNK4159	VNK4159	VNK4159	
NSP	34	Switch Holder	Not used	Not used	VNE2232	VNE2232	VNE2232	
	35	DVD Badge	VAM1115	Not used	Not used	Not used	Not used	
	36	Door Panel	VNK4664	Not used	Not used	Not used	Not used	
	37	Door Holder	VNK4650	VNK4605	VNK4605	VNK4605	VNK4605	
	39	Connector Assy	Not used	Not used	Not used	Not used	PG03KK-F12	
	40	Flexible Cable (20P)	Not used	Not used	Not used	Not used	VDA1850	
	41	Caution Label	Not used	Not used	VRW1699	VRW1699	VRW1699	
	49	Screw	BCZ40P060FZK	BCZ40P060FNI	BCZ40P060FNI	BCZ40P060FNI	BCZ40P060FNI	
	50	Label	VRW1863	Not used	Not used	Not used	Not used	
	51	Screw	Not used	Not used	PMB30P060FZK	PMB30P060FZK	PMB30P060FZK	
⚠	52	AC Inlet Assy	Not used	ADX7249	VKP2255	VKP2255	Not used	
⚠	53	R Core Transformer	VTT1163	VTT1163	VTT1164	VTT1164	VTT1164	
	55	AC Cord Spacer	ANG1153	Not used	Not used	Not used	ANG1153	
	56	Cushion 55	VEB1329	PNM1316	PNM1316	PNM1316	PNM1316	
	60	Screw	PBA1038	Not used	Not used	Not used	Not used	
	61	Wood Collor	PNW1238	Not used	Not used	Not used	Not used	
	62	Gold Maul L	VAH1340	Not used	Not used	Not used	Not used	
	63	Gold Maul R	VAH1341	Not used	Not used	Not used	Not used	
	64	Side Wood L	VAP1034	Not used	Not used	Not used	Not used	
	65	Side Wood R	VAP1035	Not used	Not used	Not used	Not used	
	66	Door Plate	Not used	VAH1343	VAH1343	VAH1343	VAH1343	
	69	Door Base	Not used	VNK4669	VNK4669	VNK4669	VNK4669	
	71	Fuse Caution Label	VRW1863	Not used	Not used	Not used	Not used	
	72	Stop Ring	Not used	YS20FBT	YS20FBT	YS20FBT	YS20FBT	
	73	Door	Not used	VEC2149	VEC2149	VEC2149	VEC2149	
⚠	75	Power Cord	ADG7028	Not used	Not used	Not used	ADG7029	
	76	Rivet	Not used	VBA1070	VBA1070	VBA1070	VBA1070	

2.3 FRONT PANEL SECTION


18
2
KU/CA and LB
Types Only
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11
Except
KU/CA Type
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Except
KU/CA Type
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18
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17
5
1
12
16 (2/2)
4
9
13
24
WY Type Only
21
Except
KU/CA Type
7
6
16 (1/2)
14 (KU/CA Type Only)
15 (Except KU/CA Type)

(1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	FLKY Assy	See Contrast table (2)
NSP	2	PWSB Assy	See Contrast table (2)
NSP	3	DILB Assy	See Contrast table (2)
	4	Pioneer Badge	See Contrast table (2)
	5	LED Lens	PNW2019
	6	DISP Lens	PNW2113
	7	DVD Ring	VAK1008
	8	FL Filter	See Contrast table (2)
	9	FL Lens	See Contrast table (2)
	10	Door Sheet	See Contrast table (2)
	11	PW Button	See Contrast table (2)
	12	LED Lens	VNK4326
	13	Sub Panel	See Contrast table (2)
	14	Front Panel	See Contrast table (2)
	15	Front Alum.	See Contrast table (2)
	16	Panel Base	See Contrast table (2)
	17	Main Key	See Contrast table (2)
	18	Screw	BPZ30P080FCC
NSP	19	Remote Control Sheet	AEE7021
	20	Flexible Cable (16P)	VDA1846
	21	FL Plate	See Contrast table (2)
	22	Earth Plate	See Contrast table (2)
	23	Reflector	See Contrast table (2)
	24	Earth Plate B	See Contrast table (2)

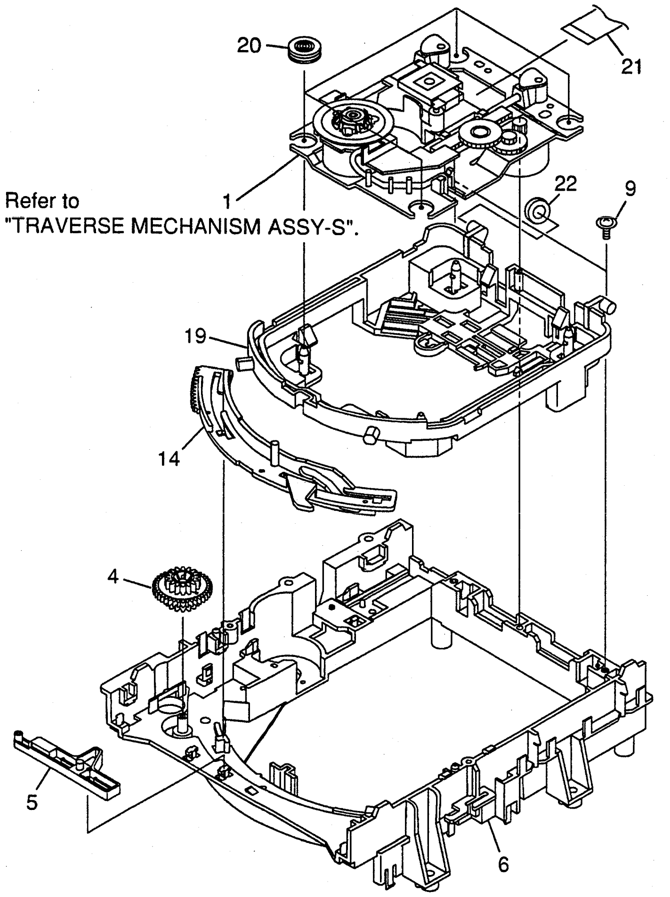
(2) CONTRAST TABLE

DV-38A/KU/CA, DV-S88A/LB, DV-S838A/WL, WL/RD and DV-939A/WY are constructed the same except for the following :

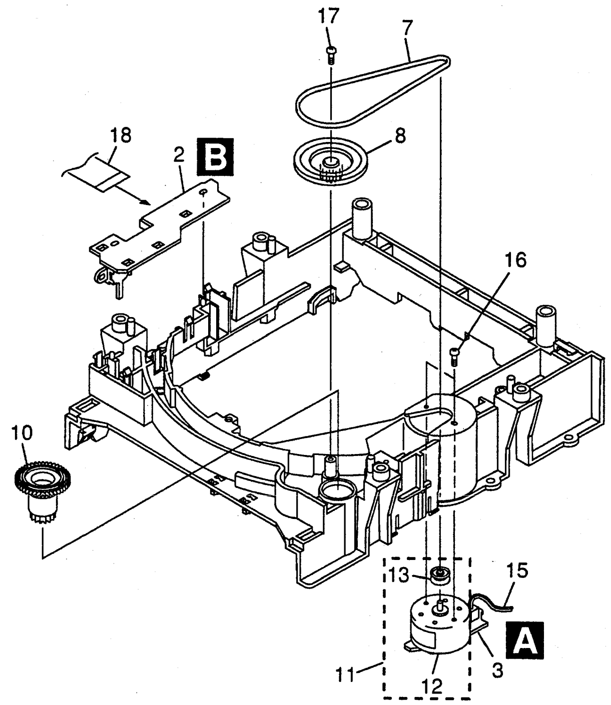
Mark	No.	Symbol and Description	Part No.					Remarks
			DV-38A /KU/CA	DV-S88A /LB	DV-S838A /WL	DV-S838A /WL/RD	DV-939A /WY	
	1	FLKY Assy	VWG2230	VWG2231	VWG2232	VWG2232	VWG2233	
NSP	2	PWSB Assy	VWG2219	VWG2221	VWG2220	VWG2220	VWG2220	
NSP	3	DILB Assy	Not used	VWG2225	VWG2225	VWG2225	VWG2225	
	4	Pioneer Badge	PAN1376	PAN1377	PAN1377	PAN1377	PAN1377	
	8	FL Filter	VEC1966	VEC2163	VEC2163	VEC2163	VEC2163	
	9	FL Lens	VEC2167	VEC2148	VEC2148	VEC2148	VEC2148	
	10	Door Sheet	VEC2153	VEC2152	VEC2152	VEC2152	VEC2152	
	11	PW Button	VNK4101	VNK4059	Not used	Not used	Not used	
	13	Sub Panel	VNK4791	VAH1342	VAH1342	VAH1342	VAH1342	
	14	Front Panel	VNK4658	Not used	Not used	Not used	Not used	
	15	Front Alum.	Not used	VAH1354	VAH1351	VAH1351	VAH1350	
	16	Panel Base	VNK4661	VNK4660	VNK4660	VNK4660	VNK4660	
	17	Main Key	VNK4667	VNK4666	VNK4666	VNK4666	VNK4666	
	21	FL Plate	Not used	VEC2192	VEC2192	VEC2192	VEC2192	
	22	Earth Plate	Not used	VBK1112	VBK1112	VBK1112	VBK1112	
	23	Reflector	Not used	VNK4694	VNK4694	VNK4694	VNK4694	
	24	Earth Plate B	Not used	Not used	Not used	Not used	VBK1135	

2.4 LOADING MECHANISM ASSY

- **Top View**



- **Bottom View**

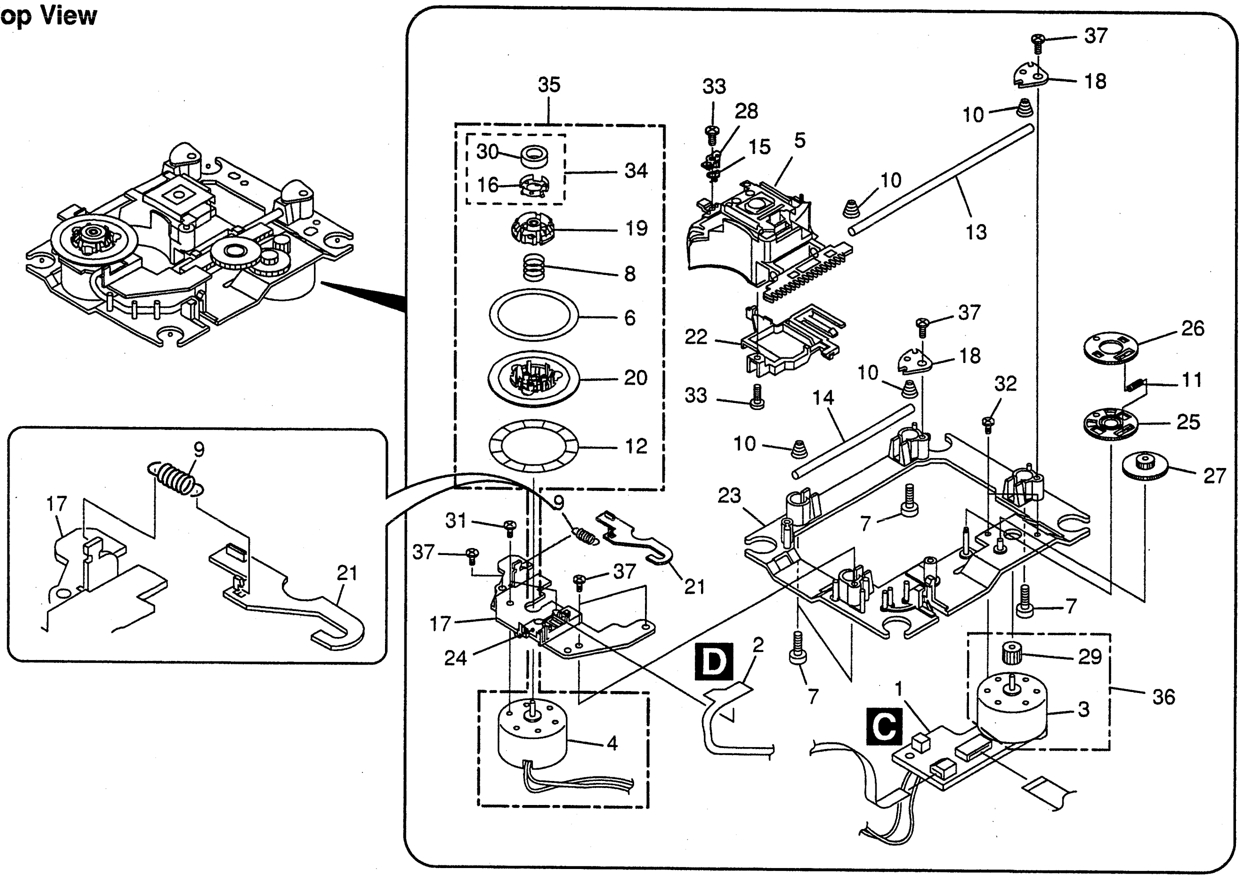


• LOADING MECHANISM ASSY PARTS LIST

Mark	No.	Description	Part No.
	1	Traverse Mechanism Assy-S	VXX2653
NSP	2	LOSB Assy	VWG1885
NSP	3	LOMB Assy	VWG1886
	4	Drive Gear	VNL1735
	5	Lock Plate	VNL1820
	6	Loading Base	VNL1730
	7	Belt	VEB1260
	8	Gear Pulley	VNL1733
	9	Screw	DBA1006
	10	Loading Gear	VNL1734
	11	Loading Motor Assy	VXX2505
	12	DC Motor / 0.3W (LOADING)	PXM1027
	13	Motor Pulley	PNW1634
	14	Drive Cam	VNL1736
	15	Connector Assy (LOMB CN401 ↔ LOSB CN303)	VKP2198
	16	Screw	VBA1055
	17	Screw	Z39-019
	18	Flexible Cable (08P) (LOSB CN302 ↔ SMEB CN202)	VDA1698
	19	Float Base	VNL1867
	20	Floating Rubber	VEB1286
	21	Flexible Cable (24P) (Pickup Assy ↔ DVDM CN120)	VDA1701
	22	Cushion	VEB1312

2.5 TRAVERSE MECHANISM ASSY-S

- **Top View**



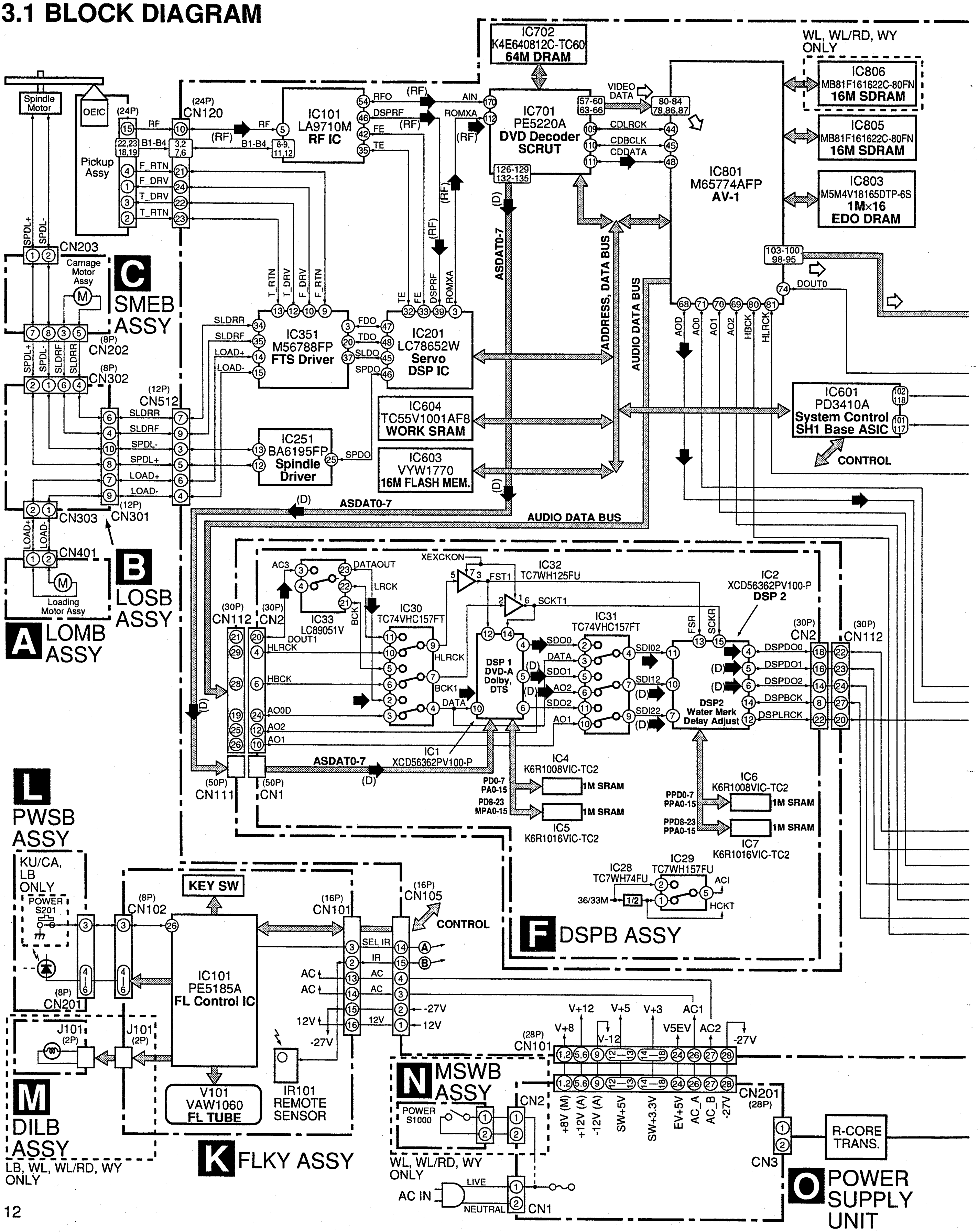
• TRAVERSE MECHANISM ASSY-S PARTS LIST

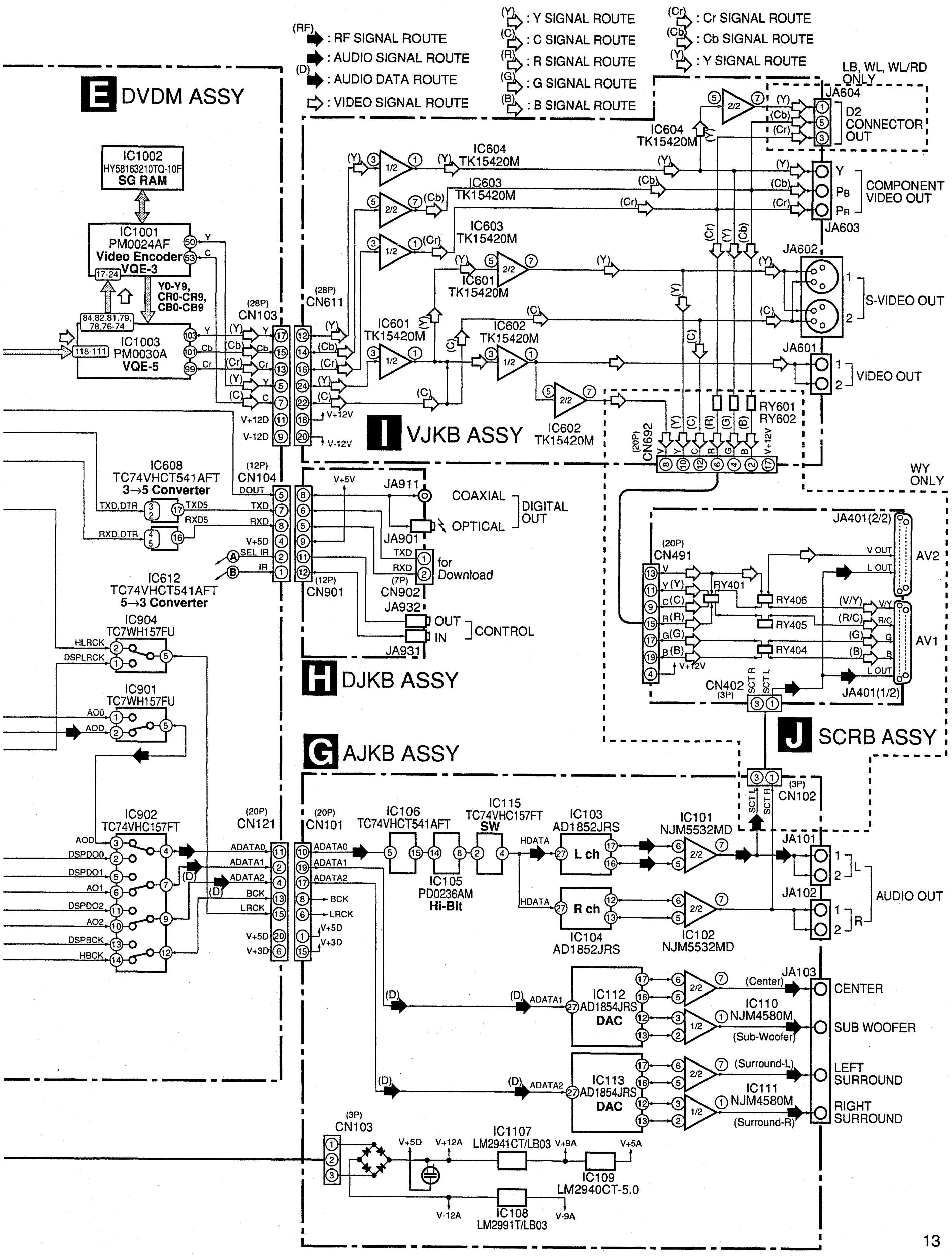
Mark	No.	Description	Part No.
NSP	1	SMEB Assy	VWG2048
NSP	2	FGSB Assy	VWG2009
NSP	3	Motor (CARRIAGE)	VXM1079
NSP	4	Motor (SPINDLE)	VXM1084
⚠ NSP	5	Pickup Assy	VWY1055
	6	Table Sheet	DEC2040
	7	Screw	VBA1058
	8	Centering Spring	VBH1278
	9	Hook Spring	VBH1317
	10	Skew Spring	VBH1303
	11	Gear Spring	VBH1308
NSP	12	Reflected Sheet	VEC1959
	13	Guide Bar	VLL1504
	14	Sub-guide Bar	VLL1505
	15	Hold Spring	VNC1017
NSP	16	Magnet Holder	VNE2070
NSP	17	Motor Base	VNE2154
NSP	18	Cover	VNE2155
	19	Centering Ring	VNL1746
NSP	20	Disc Table	VNL1747

Mark	No.	Description	Part No.
	21	Hook	VNL1770
	22	FFC Holder	VNL1802
	23	Mechanism Base	VNL1806
	24	FG Holder	VNL1807
	25	Gear A	VNL1808
	26	Gear B	VNL1809
	27	Gear C	VNL1810
	28	Slider	VNL1811
	29	Gear D	VNL1814
NSP	30	Magnet	VYM1024
	31	Screw	JFZ17P025FZK
	32	Screw	JGZ17P028FMC
	33	Screw	VBA1051
	34	Magnet Holder Assy	VXX2507
	35	Spindle Motor Assy	VXX2649
	36	Carriage Motor Assy	VXX2650
	37	Screw	PBA1069

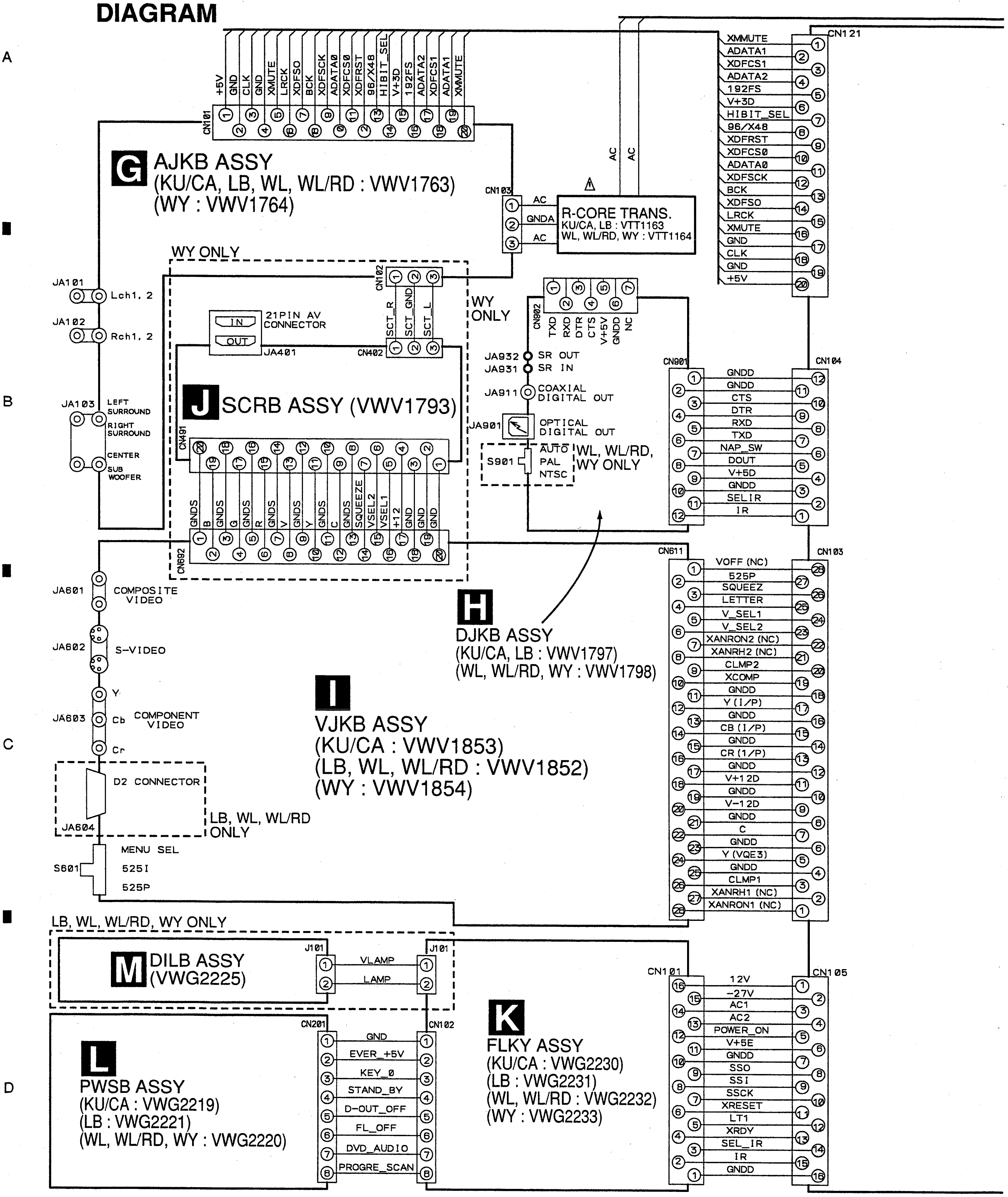
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

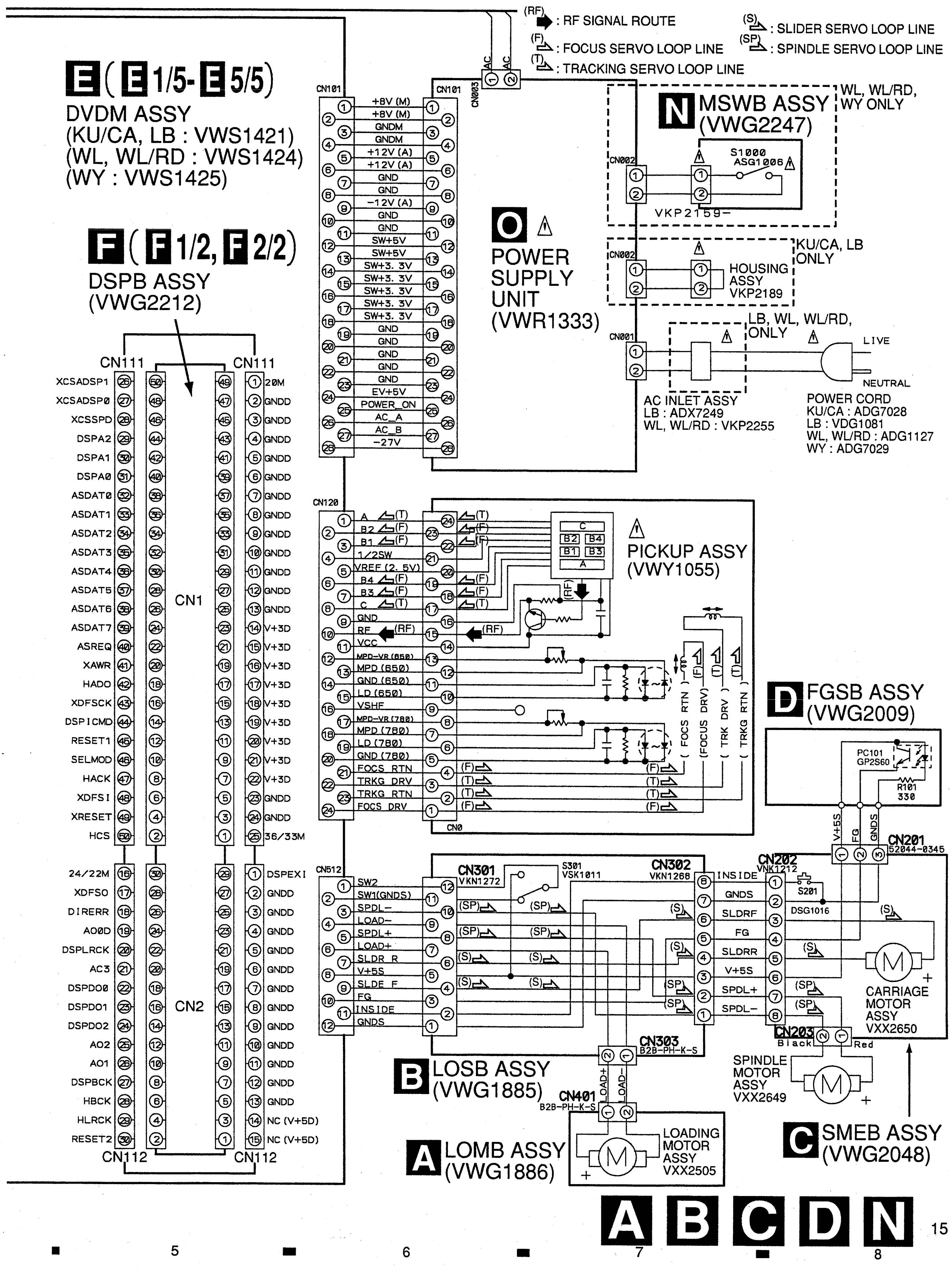

IC702
K4E640812C-TC60
64M DRAM
WL, WL/RD, WY ONLY
IC806
MB81F161622C-80FN
16M SDRAM
IC805
MB81F161622C-80FN
16M SDRAM
IC803
M5M4V18165DTP-6S
1M×16
EDO DRAM
Spindle Motor
OEIC
Pickup Assy
RF
B1-B4
F_RTN
F_DRV
T_DRV
T_RTN
(24P)
CN120
(RF)
IC101
LA9710M
RF IC
RFO
DSPRF
FE
TE
AIN
ROMXA
IC701
PE5220A
DVD Decoder
SCRUT
VIDEO DATA
CDLRCK
CDBCLK
CDDATA
IC801
M65774AFP
AV-1
ASDAT0-7
ADDRESS, DATA BUS
AUDIO DATA BUS
DOUT0
AOD
AO0
AO1
AO2
HBCK
HLRCK
CN203
Carriage Motor Assy
C
SMEB ASSY
CN202
CN302
SPDL+
SPDL-
SLDRF
SLDRR
IC351
M56788FP
FTS Driver
FDO
TDO
SLDO
SPDO
LOAD+
LOAD-
IC201
LC78652W
Servo
DSP IC
IC604
TC55V1001AF8
WORK SRAM
IC603
VYW1770
16M FLASH MEM.
IC601
PD3410A
System Control
SH1 Base ASIC
CONTROL
(12P)
CN512
IC251
BA6195FP
Spindle
Driver
CN303
CN301
CN401
Loading Motor Assy
B
LOSB ASSY
A
LOMB ASSY
AUDIO DATA BUS
XEXCKON
IC32
TC7WH125FU
FST1
SCKT1
AC3
DATAOUT
LRCK
IC33
LC89051V
DOUT1
IC30
TC74VHC157FT
IC31
TC74VHC157FT
IC2
XCD56362PV100-P
DSP 2
(30P)
CN112
(30P)
CN2
HLRCK
HBCK
AO0D
AO2
AO1
BCK1
DATA
DSP 1
DVD-A
Dolby,
DTS
SDO0
SDO1
SDO2
SDI02
SDI12
SDI22
FSR
SCKR
DSP2
Water Mark
Delay Adjust
DSPDO0
DSPDO1
DSPDO2
DSPBCK
DSPLRCK
IC1
XCD56362PV100-P
(50P)
CN111
(50P)
CN1
IC4
K6R1008VIC-TC2
1M SRAM
PD0-7
PA0-15
PD8-23
MPA0-15
IC5
K6R1016VIC-TC2
IC6
K6R1008VIC-TC2
IC7
K6R1016VIC-TC2
PPD0-7
PPA0-15
PPD8-23
PPA0-15
IC28
TC7WH74FU
IC29
TC7WH157FU
36/33M
1/2
ACI
HCKT
F
DSPB ASSY
L
PWSB ASSY
KU/CA, LB ONLY
POWER S201
(8P)
CN102
CN201
KEY SW
(16P)
CN101
(16P)
CN105
CONTROL
IC101
PE5185A
FL Control IC
SEL IR
IR
AC
12V
-27V
-12V
J101
(2P)
M
DILB ASSY
LB, WL, WL/RD, WY ONLY
V101
VAW1060
FL TUBE
IR101
REMOTE SENSOR
K
FLKY ASSY
N
MSWB ASSY
POWER S1000
CN2
WL, WL/RD, WY ONLY
AC IN
LIVE
NEUTRAL
CN1
V+8
V+12
V+5
V+3
AC1
V-12
V5EV
AC2
-27V
(28P)
CN101
+8V (M)
+12V (A)
-12V (A)
SW+5V
SW+3.3V
EV+5V
AC_A
AC_B
-27V
CN201
(28P)
CN3
R-CORE TRANS.
O
POWER SUPPLY UNIT


(RF) : RF SIGNAL ROUTE
: AUDIO SIGNAL ROUTE
(D) : AUDIO DATA ROUTE
: VIDEO SIGNAL ROUTE
(Y) : Y SIGNAL ROUTE
(C) : C SIGNAL ROUTE
(R) : R SIGNAL ROUTE
(G) : G SIGNAL ROUTE
(B) : B SIGNAL ROUTE
(Cr) : Cr SIGNAL ROUTE
(Cb) : Cb SIGNAL ROUTE
(Y) : Y SIGNAL ROUTE
E DVDM ASSY
IC1002
HY58163210TQ-10F
SG RAM
IC1001
PM0024AF
Video Encoder
VQE-3
17-24
Y0-Y9,
CR0-CR9,
CB0-CB9
84,82,81,79,
78,76-74
IC1003
PM0030A
VQE-5
118-111
(28P)
CN103
V+12D
V-12D
(28P)
CN611
V+12V
V-12V
IC604
TK15420M
IC603
TK15420M
IC601
TK15420M
IC602
TK15420M
1/2
2/2
I VJKB ASSY
LB, WL, WL/RD
ONLY
JA604
D2
CONNECTOR
OUT
COMPONENT
VIDEO OUT
Y
PB
PR
JA603
JA602
S-VIDEO OUT
JA601
VIDEO OUT
RY601
RY602
(20P)
CN692
V+12V
WY
ONLY
IC608
TC74VHCT541AFT
3→5 Converter
TXD,DTR
RXD,DTR
TXD5
RXD5
(12P)
CN104
DOUT
TXD
RXD
V+5D
SEL IR
IR
IC612
TC74VHCT541AFT
5→3 Converter
V+5V
JA911
COAXIAL
OPTICAL
DIGITAL
OUT
JA901
(12P)
CN901
(7P)
CN902
for
Download
JA932
OUT
IN
CONTROL
JA931
H DJKB ASSY
IC904
TC7WH157FU
HLRCK
DSPLRCK
IC901
TC7WH157FU
AO0
AOD
IC902
TC74VHC157FT
AOD
DSPDO0
DSPDO1
AO1
DSPDO2
AO2
DSPBCK
HBCK
(20P)
CN121
ADATA0
ADATA1
ADATA2
BCK
LRCK
V+5D
V+3D
G AJKB ASSY
(20P)
CN101
IC106
TC74VHCT541AFT
IC105
PD0236AM
Hi-Bit
IC115
TC74VHC157FT
SW
HDATA
IC103
AD1852JRS
L ch
IC104
AD1852JRS
R ch
IC101
NJM5532MD
IC102
NJM5532MD
JA101
JA102
AUDIO OUT
L
R
(3P)
CN102
SCT L
SCT R
JA103
IC112
AD1854JRS
DAC
IC110
NJM4580M
(Center)
(Sub-Woofer)
CENTER
SUB WOOFER
IC113
AD1854JRS
DAC
IC111
NJM4580M
(Surround-L)
(Surround-R)
LEFT
SURROUND
RIGHT
SURROUND
(3P)
CN103
V+5D
V+12A
IC1107
LM2941CT/LB03
V+9A
V+5A
IC109
LM2940CT-5.0
V-12A
IC108
LM2991T/LB03
V-9A
JA401(2/2)
AV2
V OUT
L OUT
(20P)
CN491
RY401
RY406
RY405
RY404
V+12V
AV1
JA401(1/2)
CN402
(3P)
J SCRB ASSY

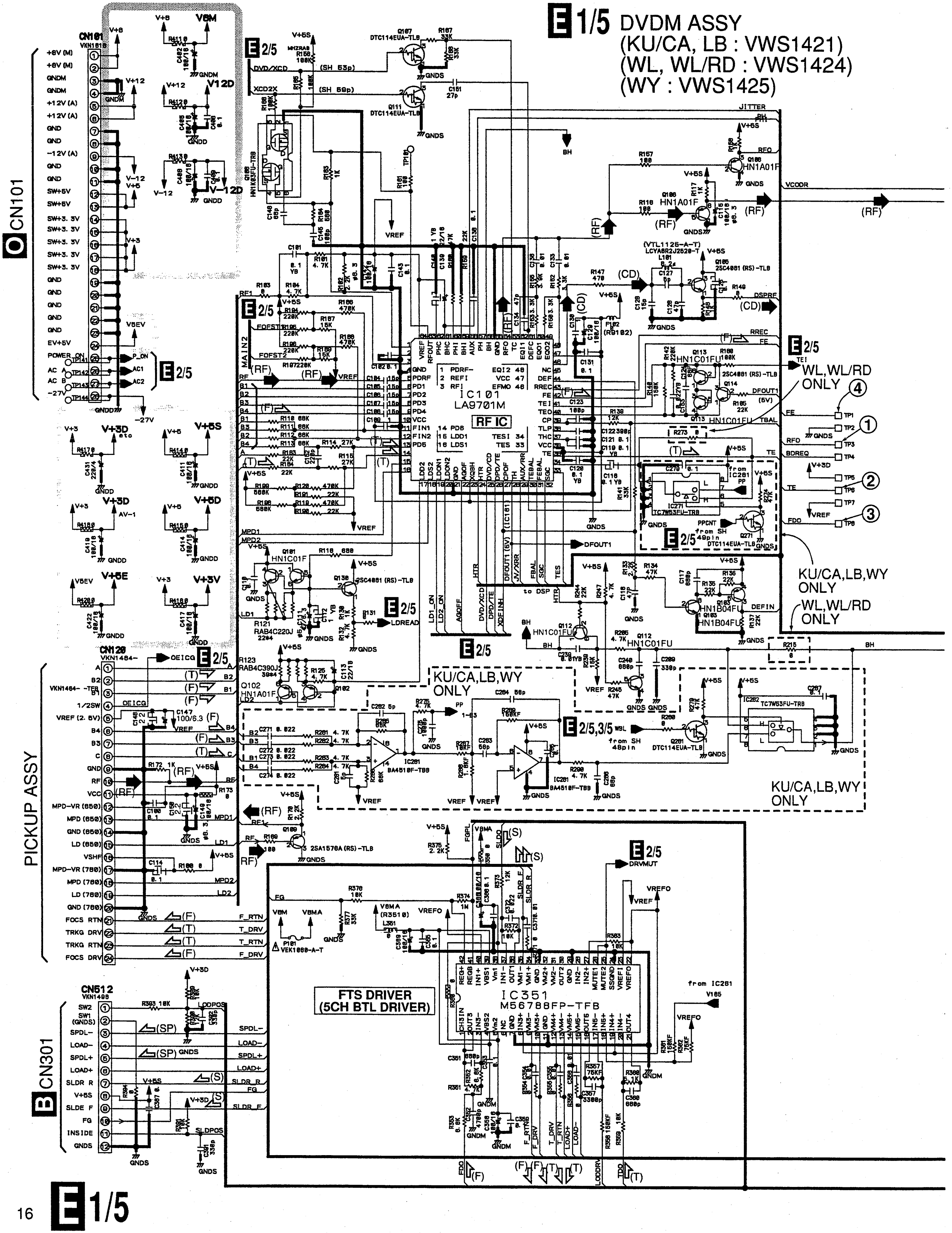
3.2 LOMB, LOSB, SMEB, FGSB, MSWB ASSYS and OVERALL WIRING DIAGRAM

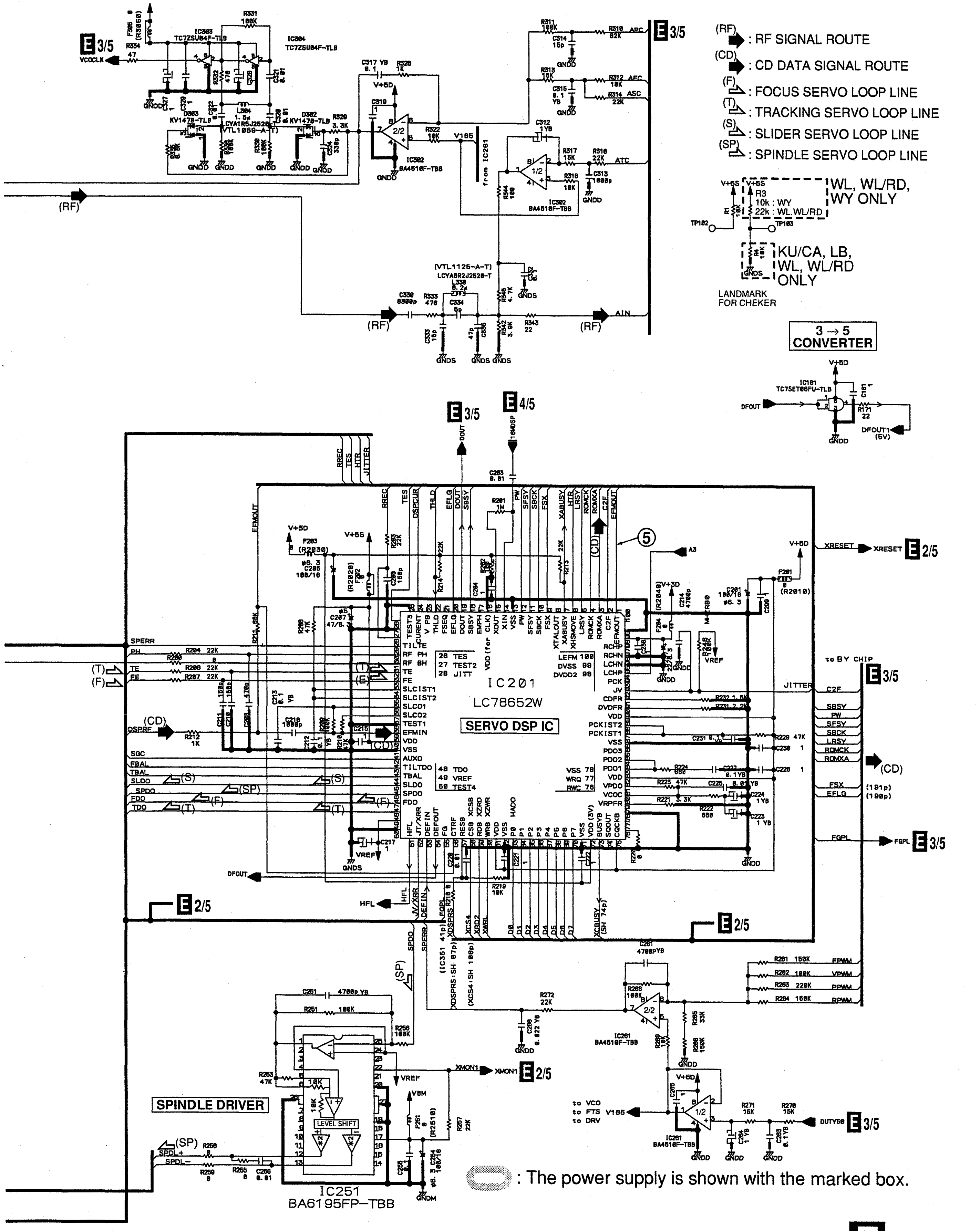

A
B
C
D
CN101
+5V
GND
CLK
GND
XMUTE
LRCK
XDFSO
BCK
XDFSCK
ADATA0
XDFCS0
XDFRST
96/X48
HIBIT_SEL
V+3D
192FS
ADATA2
XDFCS1
ADATA1
XMMUTE
G
AJKB ASSY
(KU/CA, LB, WL, WL/RD : VWV1763)
(WY : VWV1764)
AC
AC
CN103
AC
GNDA
AC
R-CORE TRANS.
KU/CA, LB : VTT1163
WL, WL/RD, WY : VTT1164
CN121
XMMUTE
ADATA1
XDFCS1
ADATA2
192FS
V+3D
HIBIT_SEL
96/X48
XDFRST
XDFCS0
ADATA0
XDFSCK
BCK
XDFSO
LRCK
XMUTE
GND
CLK
GND
+5V
JA101
Lch1, 2
JA102
Rch1, 2
WY ONLY
CN102
SCT_R
SCT_GND
SCT_L
WY ONLY
21PIN AV CONNECTOR
IN
OUT
JA401
CN402
CN902
TXD
RXD
DTR
CTS
V+5V
GNDD
NC
JA932
SR OUT
JA931
SR IN
JA911
COAXIAL DIGITAL OUT
JA901
OPTICAL DIGITAL OUT
S901
AUTO
PAL
NTSC
WL, WL/RD, WY ONLY
CN901
CN104
GNDD
GNDD
CTS
DTR
RXD
TXD
NAP_SW
DOUT
V+5D
GNDD
SELIR
IR
JA103
LEFT SURROUND
RIGHT SURROUND
CENTER
SUB WOOFER
J
SCRB ASSY (VWV1793)
CN401
GNDS
B
GNDS
G
GNDS
R
GNDS
V
GNDS
Y
GNDS
C
GNDS
SQUEEZE
VSEL2
VSEL1
+12
GND
GND
GND
CN602
CN611
CN103
VOFF (NC)
525P
SQUEEZ
LETTER
V_SEL1
V_SEL2
XANRON2 (NC)
XANRH2 (NC)
CLMP2
XCOMP
GNDD
Y (I/P)
GNDD
CB (I/P)
GNDD
CR (I/P)
GNDD
V+12D
GNDD
V-12D
GNDD
C
GNDD
Y (VQE3)
GNDD
CLMP1
XANRH1 (NC)
XANRON1 (NC)
JA601
COMPOSITE VIDEO
JA602
S-VIDEO
JA603
Y
Cb
Cr
COMPONENT VIDEO
H
DJKB ASSY
(KU/CA, LB : VWV1797)
(WL, WL/RD, WY : VWV1798)
I
VJKB ASSY
(KU/CA : VWV1853)
(LB, WL, WL/RD : VWV1852)
(WY : VWV1854)
D2 CONNECTOR
JA604
LB, WL, WL/RD ONLY
S601
MENU SEL
525I
525P
LB, WL, WL/RD, WY ONLY
M
DILB ASSY
(VWG2225)
J101
J101
VLAMP
LAMP
CN101
CN105
12V
-27V
AC1
AC2
POWER_ON
V+5E
GNDD
SSO
SSI
SSCK
XRESET
LT1
XRDY
SEL_IR
IR
GNDD
L
PWSB ASSY
(KU/CA : VWG2219)
(LB : VWG2221)
(WL, WL/RD, WY : VWG2220)
CN201
CN102
GND
EVER_+5V
KEY_0
STAND_BY
D-OUT_OFF
FL_OFF
DVD_AUDIO
PROGRE_SCAN
K
FLKY ASSY
(KU/CA : VWG2230)
(LB : VWG2231)
(WL, WL/RD : VWG2232)
(WY : VWG2233)

Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".


(RF): RF SIGNAL ROUTE
(F): FOCUS SERVO LOOP LINE
(T): TRACKING SERVO LOOP LINE
(S): SLIDER SERVO LOOP LINE
(SP): SPINDLE SERVO LOOP LINE
E (E 1/5- E 5/5)
DVDM ASSY
(KU/CA, LB : VWS1421)
(WL, WL/RD : VWS1424)
(WY : VWS1425)
F (F 1/2, F 2/2)
DSPB ASSY
(VWG2212)
CN111
XCSADSP1, XCSADSP0, XCSSPD, DSPA2, DSPA1, DSPA0, ASDAT0, ASDAT1, ASDAT2, ASDAT3, ASDAT4, ASDAT5, ASDAT6, ASDAT7, ASREQ, XAWR, HADO, XDFSCK, DSPICMD, RESET1, SELMOD, HACK, XDFSI, XRESET, HCS
20M, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, V+3D, V+3D, V+3D, V+3D, V+3D, V+3D, V+3D, V+3D, V+3D, GNDD, GNDD, 36/33M
CN1
CN112
24/22M, XDFSO, DIRERR, AO0D, DSPLRCK, AC3, DSPDO0, DSPDO1, DSPDO2, AO2, AO1, DSPBCK, HBCK, HLRCK, RESET2
DSPEXI, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, GNDD, NC (V+5D), NC (V+5D)
CN2
CN101
+8V (M), +8V (M), GNDM, GNDM, +12V (A), +12V (A), GND, GND, −12V (A), GND, GND, SW+5V, SW+5V, SW+3. 3V, SW+3. 3V, SW+3. 3V, SW+3. 3V, GND, GND, GND, GND, GND, EV+5V, POWER_ON, AC_A, AC_B, −27V
CN003 AC AC
O POWER SUPPLY UNIT (VWR1333)
N MSWB ASSY (VWG2247)
WL, WL/RD, WY ONLY
CN002 S1000 ASG1006 VKP2159−
KU/CA, LB ONLY
CN002 HOUSING ASSY VKP2189
LB, WL, WL/RD, ONLY
CN001 LIVE NEUTRAL
AC INLET ASSY
LB : ADX7249
WL, WL/RD : VKP2255
POWER CORD
KU/CA : ADG7028
LB : VDG1081
WL, WL/RD : ADG1127
WY : ADG7029
CN120
A (T), B2 (F), B1 (F), 1/2SW, VREF (2. 5V), B4 (F), B3 (F), C (T), GND, RF (RF), VCC, MPD-VR (650), MPD (650), GND (650), LD (650), VSHF, MPD-VR (780), MPD (780), LD (780), GND (780), FOCS RTN, TRKG DRV, TRKG RTN, FOCS DRV
CN0
C B2 B4 B1 B3 A
PICKUP ASSY (VWY1055)
(FOCS RTN) (FOCUS DRV) (TRK DRV) (TRKG RTN)
D FGSB ASSY (VWG2009)
PC101 GP2S60 R101 330
V+5S FG GNDS
CN201 52044-0345
CN512
SW2, SW1(GNDS), SPDL−, LOAD−, SPDL+, LOAD+, SLDR R, V+5S, SLDE F, FG, INSIDE, GNDS
CN301 VKN1272
S301 VSK1011
CN302 VKN1268
INSIDE, GNDS, SLDRF, FG, SLDRR, V+5S, SPDL+, SPDL−
CN202 VNK1212
S201 DSG1016
CARRIAGE MOTOR ASSY VXX2650
CN203 Black Red
SPINDLE MOTOR ASSY VXX2649
CN303 B2B-PH-K-S
B LOSB ASSY (VWG1885)
LOAD+ LOAD−
CN401 B2B-PH-K-S
A LOMB ASSY (VWG1886)
LOADING MOTOR ASSY VXX2505
C SMEB ASSY (VWG2048)
A B C D N

3.3 DVDM ASSY (1/5)

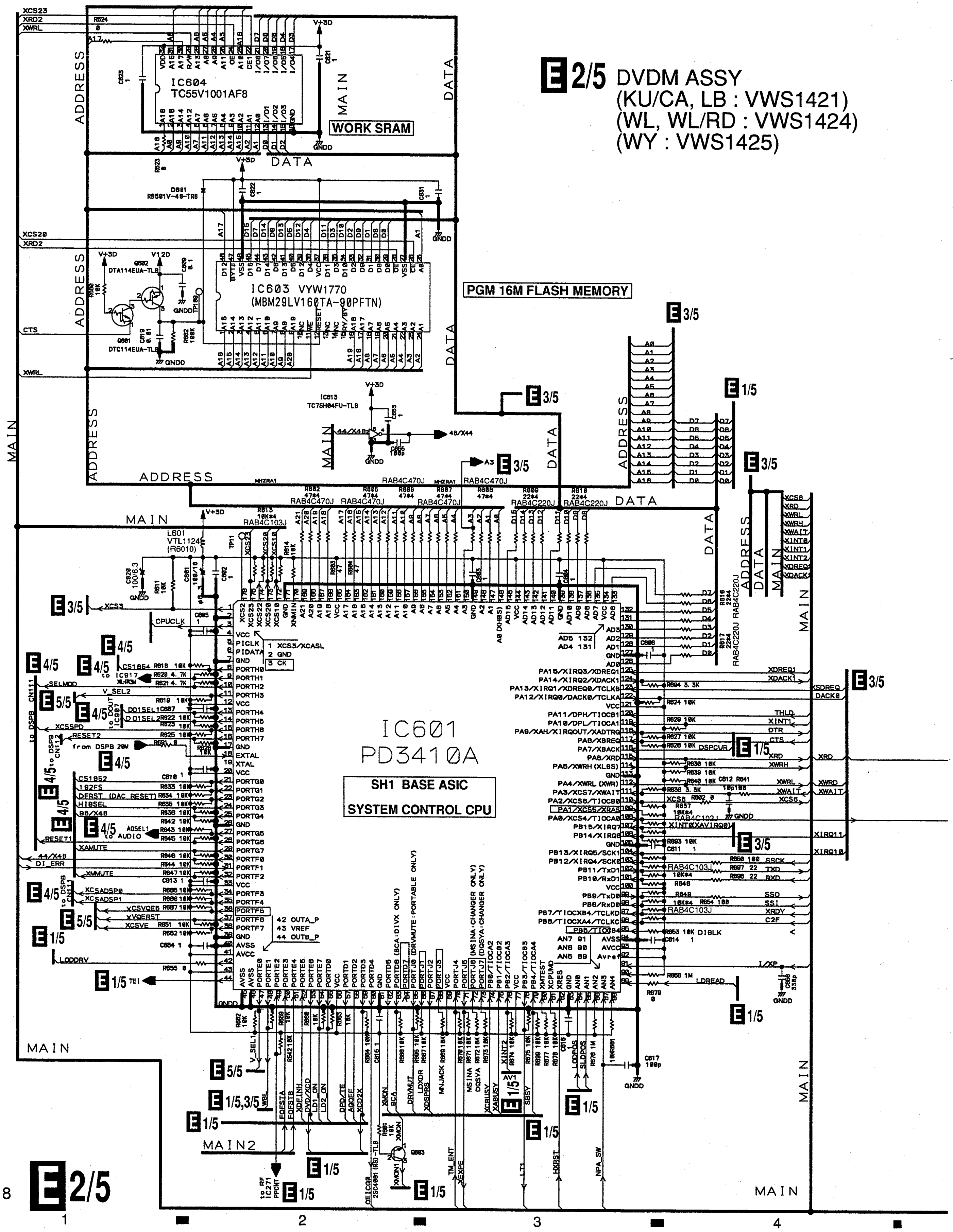

E 1/5 DVDM ASSY
(KU/CA, LB : VWS1421)
(WL, WL/RD : VWS1424)
(WY : VWS1425)
A
B
C
D
O CN101
CN101
VKN1618
+8V (M)
+8V (M)
GNDM
GNDM
+12V (A)
+12V (A)
GND
GND
-12V (A)
GND
GND
SW+5V
SW+5V
SW+3.3V
SW+3.3V
SW+3.3V
SW+3.3V
SW+3.3V
GND
GND
GND
GND
GND
EV+5V
POWER_ON
AC A
AC B
-27V
V8M
V12D
V-12D
V+3D
V+5S
V+3D
V+5D
V+5E
V+3V
E 2/5
IC101
LA9701M
RF IC
Q107
DTC114EUA-TLB
Q111
DTC114EUA-TLB
Q106
HN1A01F
Q108
HN1A01F
Q105
2SC4081 (RS) -TLB
(VTL1125-A-T)
LCYA8R2J2520-T
L101
(CD)
(RF)
DSPRF
JITTER
RFO
VCODR
BH
TEI
WL,WL/RD ONLY
Q113
HN1C01FU
Q114
DFOUT1
IC271
TC7W53FU-TR8
Q271
DTC114EUA-TLB
PPCNT from SH 48pin
KU/CA,LB,WY ONLY
WL,WL/RD ONLY
Q103
HN1B04FU
DEFIN
Q112
HN1C01FU
Q101
HN1C01F
Q136
2SC4081 (RS) -TLB
LDREAD
Q102
HN1A01F
KU/CA,LB,WY ONLY
IC281
BA4510F-TB8
IC282
TC7W53FU-TR8
Q281
DTC114EUA-TLB
E 2/5,3/5
from SH 48pin
KU/CA,LB,WY ONLY
CN120
VKN1484
PICKUP ASSY
OEICG
VREF (2.5V)
B4
B3
C
GND
RF
VCC
MPD-VR (650)
MPD (650)
GND (650)
LD (650)
VSHF
MPD-VR (780)
MPD (780)
LD (780)
GND (780)
FOCS RTN
TRKG DRV
TRKG RTN
FOCS DRV
Q109
2SA1576A (RS) -TLB
DRVMUT
FTS DRIVER
(5CH BTL DRIVER)
IC351
M56788FP-TFB
P101
VEK1080-A-T
from IC281
V165
CN512
VKN1498
B CN301
SW2
SW1 (GNDS)
SPDL-
LOAD-
SPDL+
LOAD+
SLDR R
V+5S
SLDE F
FG
INSIDE
GNDS
LODPOS
SLDPOS
F_RTN
T_DRV
T_RTN
F_DRV
FDO
TDO
LODDRV



(RF) : RF SIGNAL ROUTE
(CD) : CD DATA SIGNAL ROUTE
(F) : FOCUS SERVO LOOP LINE
(T) : TRACKING SERVO LOOP LINE
(S) : SLIDER SERVO LOOP LINE
(SP) : SPINDLE SERVO LOOP LINE
WL, WL/RD, WY ONLY
R3 10k : WY 22k : WL.WL/RD
KU/CA, LB, WL, WL/RD ONLY
LANDMARK FOR CHEKER
TP102
TP103
3 → 5 CONVERTER
IC161 TC7SET08FU-TLB
DFOUT
DFOUT1 (5V)
E 3/5
VCOCLK
IC303 TC7SU04F-TLB
IC304 TC7SU04F-TLB
D303 KV1470-TLB
D302 KV1470-TLB
L304 1.5μ
LCYA1R5J2520 (VTL1059-A-T)
IC302 BA4510F-TBB
V165
from IC201
APC
AFC
ASC
ATC
(VTL1126-A-T) LCYA8R2J2520-T
L338 8.2μ
AIN
(RF)
E 3/5
E 4/5
DOUT
16MDSP
XRESET
E 2/5
A3
IC201
LC78652W
SERVO DSP IC
to BY CHIP
JITTER
C2F
SBSY
PW
SFSY
SBCK
LRSY
ROMCK
ROMXA
(CD)
FSX
EFLG
FGPL
E 3/5
SPERR
PH
TE
FE
DSPRF
SGC
FBAL
TBAL
SLDO
SPDO
FDO
TDO
DFOUT
HFL
E 2/5
E 2/5
FPWM
VPWM
PPWM
RPWM
IC261 BA4510F-TBB
to VCO
to FTS V165
to DRV
DUTY50
E 3/5
XMON1
E 2/5
SPINDLE DRIVER
LEVEL SHIFT
IC251
BA6195FP-TBB
SPDL+
SPDL−
GNDM

: The power supply is shown with the marked box.

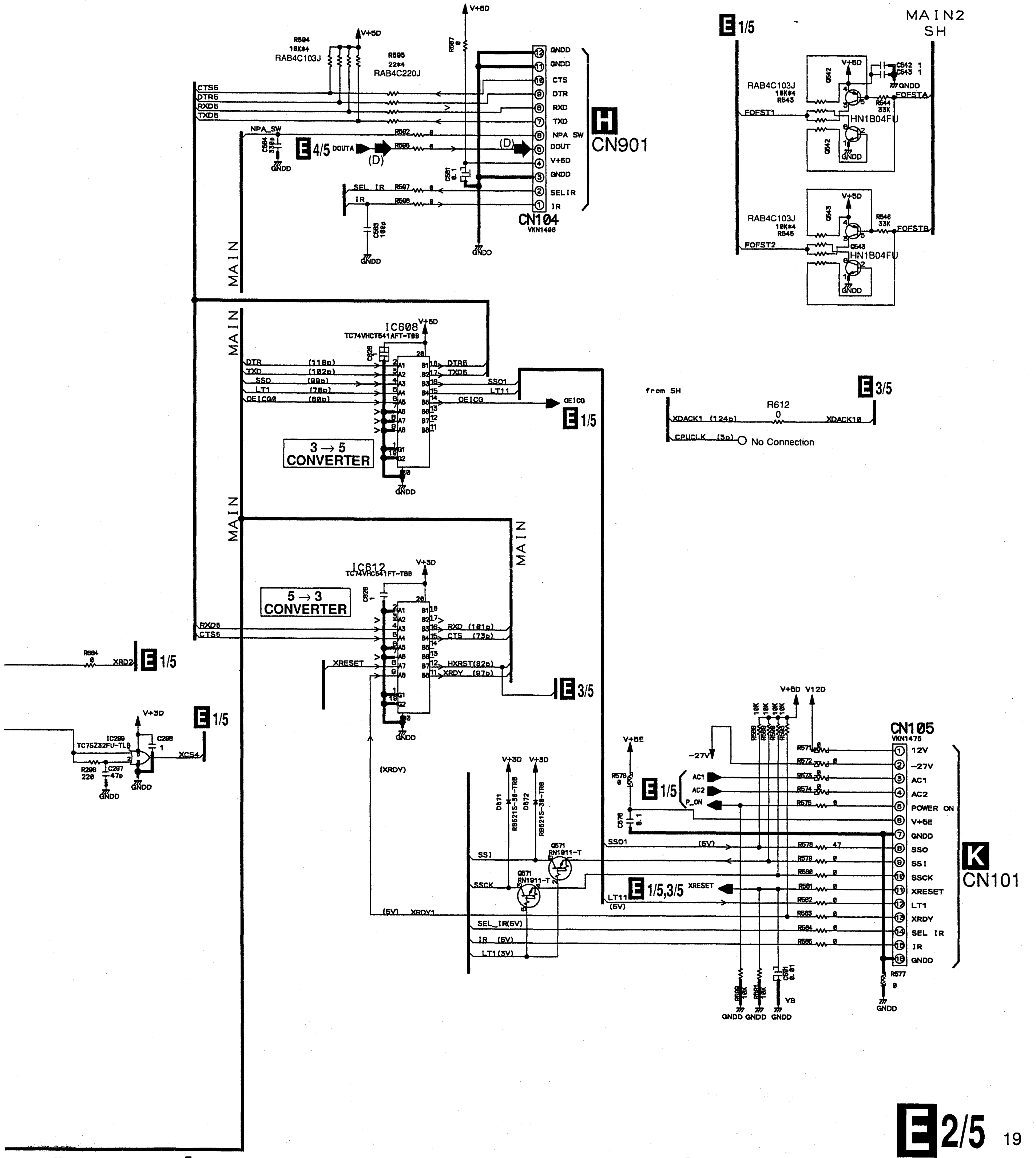
3.4 DVDM ASSY (2/5)



E 2/5 DVDM ASSY
(KU/CA, LB : VWS1421)
(WL, WL/RD : VWS1424)
(WY : VWS1425)

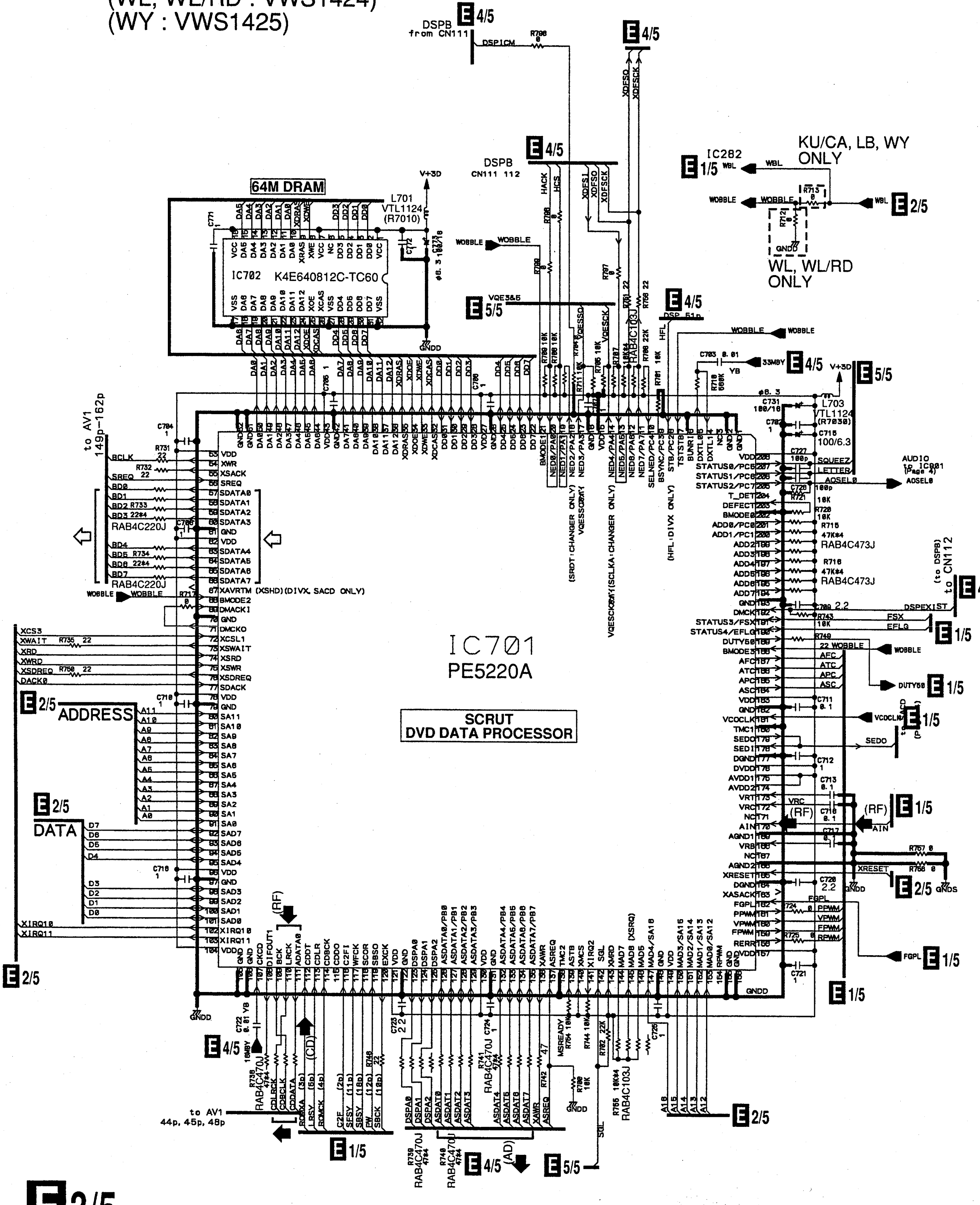
IC604
TC55V1001AF8
WORK SRAM
IC603 VYW1770
(MBM29LV160TA-90PFTN)
PGM 16M FLASH MEMORY
IC613
TC7SH04FU-TLB
IC601
PD3410A
SH1 BASE ASIC
SYSTEM CONTROL CPU
L601
VTL1124
(R6010)
D601
RB501V-40-TR8
Q602
DTA114EUA-TLB
Q601
DTC114EUA-TLB
Q603
2SC4081 (RS)-TLB
ADDRESS
DATA
MAIN
MAIN2
XCS23
XRD2
XWRL
XCS20
CTS
XCS3
CPUCLK
SELMOD
V_SEL2
XCSSPD
RESET2
RESET1
XAMUTE
XMMUTE
DI_ERR
XCSADSP0
XCSADSP1
XCSVOE5
XVOERST
XCSVE
LODDRV
TEI
V+3D
V12D
GNDD
E 3/5
E 1/5
E 4/5
E 5/5
E 1/5,3/5
to DSPB CN111
to DSPB CN112
from DSPB 20M
to AUDIO
to RF IC271 PPCNT
A
B
C
D
1
2
3
4

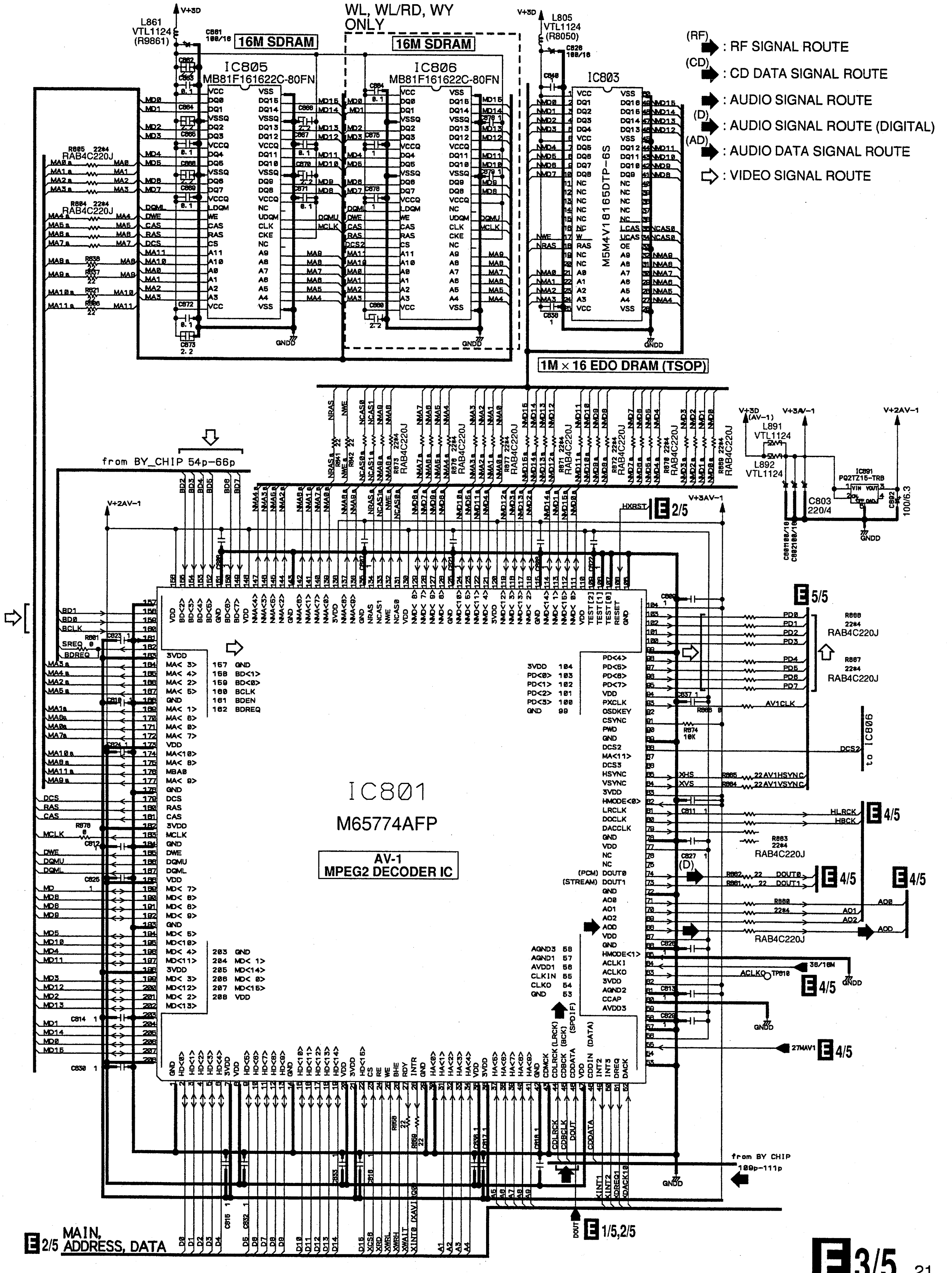
(D) ➡ : AUDIO SIGNAL ROUTE (DIGITAL)


H
CN901
CN104
VKN1498
GNDD
CTS
DTR
RXD
TXD
NPA SW
DOUT
V+5D
SEL IR
IR
R594 10K×4 RAB4C103J
R595 22×4 RAB4C220J
R567 0
CTS5
DTR5
RXD5
TXD5
NPA_SW
E 4/5
DOUTA
(D)
C594
C561 0.1
SEL IR
R597
R598
R592
R596
C563 100p
MAIN
E 1/5
MAIN2
SH
RAB4C103J 10K×4 R543
RAB4C103J 10K×4 R545
Q542
Q543
HN1B04FU
C542 1
C543 1
R544 33K
R546 33K
FOFST1
FOFST2
FOFSTA
FOFSTB
IC608
TC74VHCT541AFT-TBB
C626
DTR (118p)
TXD (102p)
SSO (99p)
LT1 (78p)
OEICG0 (80p)
DTR5
TXD5
SSO1
LT11
OEICG
E 1/5
3 → 5 CONVERTER
from SH
E 3/5
R612 0
XDACK1 (124p)
XDACK10
CPUCLK (3p)
○ No Connection
IC612
TC74VHC541FT-TBB
C628
5 → 3 CONVERTER
RXD5
CTS5
RXD (101p)
CTS (73p)
XRESET
HXRST(82p)
XRDY (87p)
E 3/5
R684 0
XRD2
E 1/5
IC299
TC7SZ32FU-TLB
C298 1
R298 220
C297 47p
XCS4
E 1/5
(XRDY)
V+3D
D571
D572
RB521S-30-TRB
Q571
RN1911-T
SSI
SSCK
(5V) XRDY1
SEL_IR(5V)
IR (5V)
LT1(3V)
SSO1 (5V)
LT11 (5V)
E 1/5,3/5
XRESET
V+5E
R576 0
C576 0.1
E 1/5
AC1
AC2
P_ON
-27V
V+5D V12D
10K
R571 ... R585
R590 10K
R591 10K
C591 0.01
YB
R577 0
GNDD
CN105
VKN1475
12V
-27V
AC1
AC2
POWER ON
V+5E
GNDD
SSO
SSI
SSCK
XRESET
LT1
XRDY
SEL IR
IR
GNDD
K
CN101

3.5 DVDM ASSY (3/5)

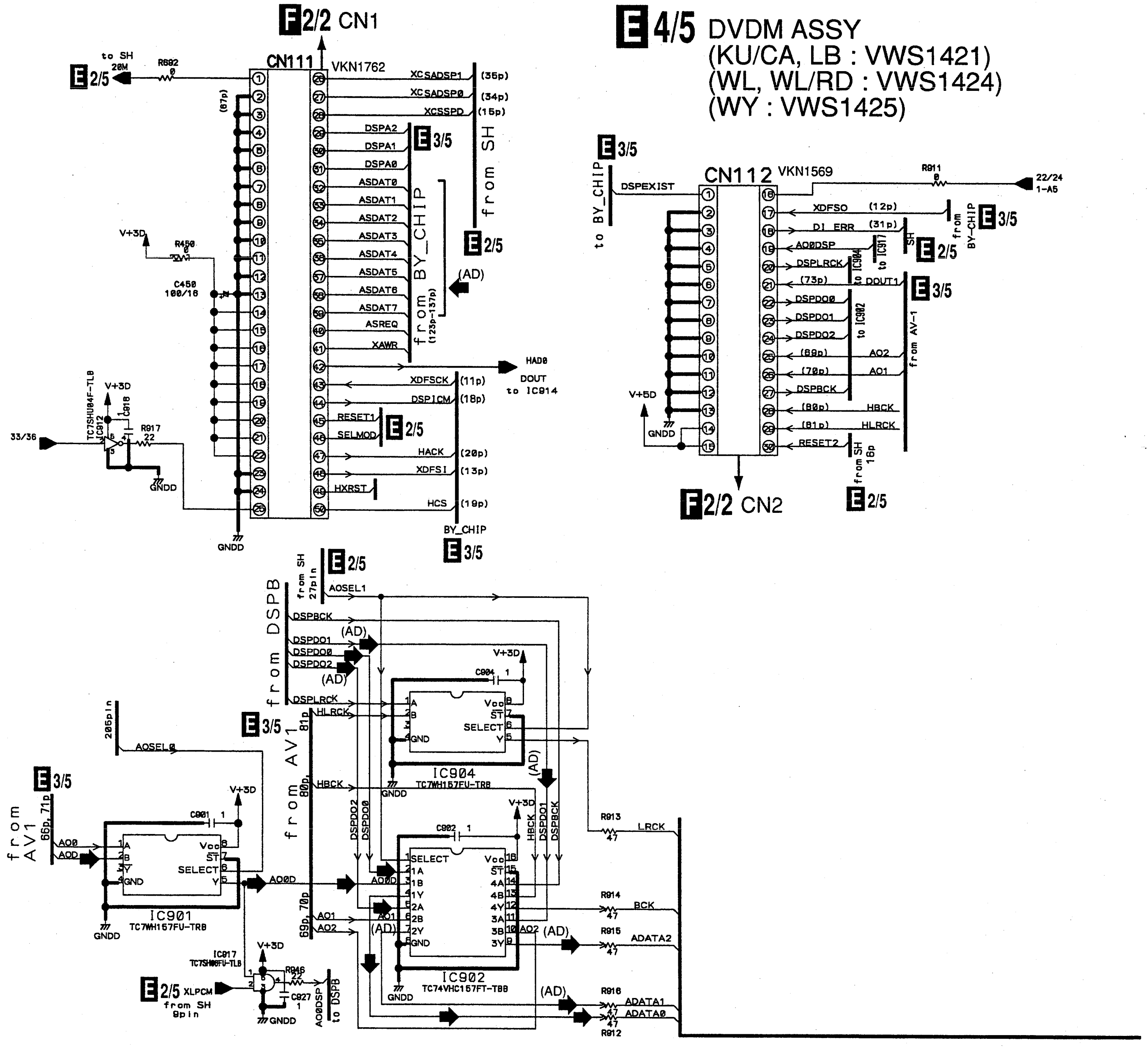
E 3/5 DVDM ASSY
(KU/CA, LB : VWS1421)
(WL, WL/RD : VWS1424)
(WY : VWS1425)


IC701
PE5220A
SCRUT
DVD DATA PROCESSOR
64M DRAM
IC702 K4E640812C-TC60
L701 VTL1124 (R7010)
L703 VTL1124 (R7030)
DSPB from CN111
DSPB CN111 112
E 4/5
E 5/5
E 1/5
E 2/5
IC282
KU/CA, LB, WY ONLY
WL, WL/RD ONLY
WBL
WOBBLE
R713 0
R712 0
VQE3&6
DSP 51p
33MBY
V+3D
to AV1 149p-162p
RAB4C220J
ADDRESS
DATA
XCS3
XWAIT
XRD
XWRD
XSDREQ
DACK0
XIRQ10
XIRQ11
RAB4C473J
AUDIO to IC801 (Page 4)
ADSEL0
to DSPB CN112
DSPEXIST
FSX
EFLG
DUTY50
VCOCLK
SEDO
(RF)
AIN
XRESET
FGPL
PPWM
VPWM
FPWM
RPWM
GNDD
GNDS
to AV1 44p, 45p, 48p
RAB4C470J
RAB4C103J
(CD)
(AD)
SQL
MSREADY
A16
A15
A14
A13
A12


L861
VTL1124
(R9861)
V+3D
C861 100/16
16M SDRAM
IC805
MB81F161622C-80FN
WL, WL/RD, WY ONLY
16M SDRAM
IC806
MB81F161622C-80FN
L805
VTL1124
(R8050)
C826 100/16
IC803
M5M4V18165DTP-6S
1M × 16 EDO DRAM (TSOP)
GNDD
R805 22×4 RAB4C220J
R804 22×4 RAB4C220J
from BY_CHIP 54p-66p
V+2AV-1
V+3AV-1
V+3D (AV-1)
L891 VTL1124
L892 VTL1124
IC891 PQ2TZ15-TRB
C803 220/4
C892 100/6.3
HXRST
E 2/5
E 5/5
R868 22×4 RAB4C220J
R867 22×4 RAB4C220J
AV1CLK
to IC806
DCS2
22AV1HSYNC
22AV1VSYNC
IC801
M65774AFP
AV-1
MPEG2 DECODER IC
HLRCK
HBCK
E 4/5
R863 22×4 RAB4C220J
(D)
(PCM) DOUT0
(STREAM) DOUT1
DOUT0
DOUT1
E 4/5
E 4/5
R860 22×4 RAB4C220J
AO0
AO1
AO2
AOD
36/16M
ACLKO TP818
E 4/5
27MAV1
E 4/5
from BY CHIP 109p-111p
GNDD
DOUT
E 1/5,2/5
E 2/5 MAIN, ADDRESS, DATA

(RF) : RF SIGNAL ROUTE
(CD) : CD DATA SIGNAL ROUTE
: AUDIO SIGNAL ROUTE
(D) : AUDIO SIGNAL ROUTE (DIGITAL)
(AD) : AUDIO DATA SIGNAL ROUTE
⇨ : VIDEO SIGNAL ROUTE

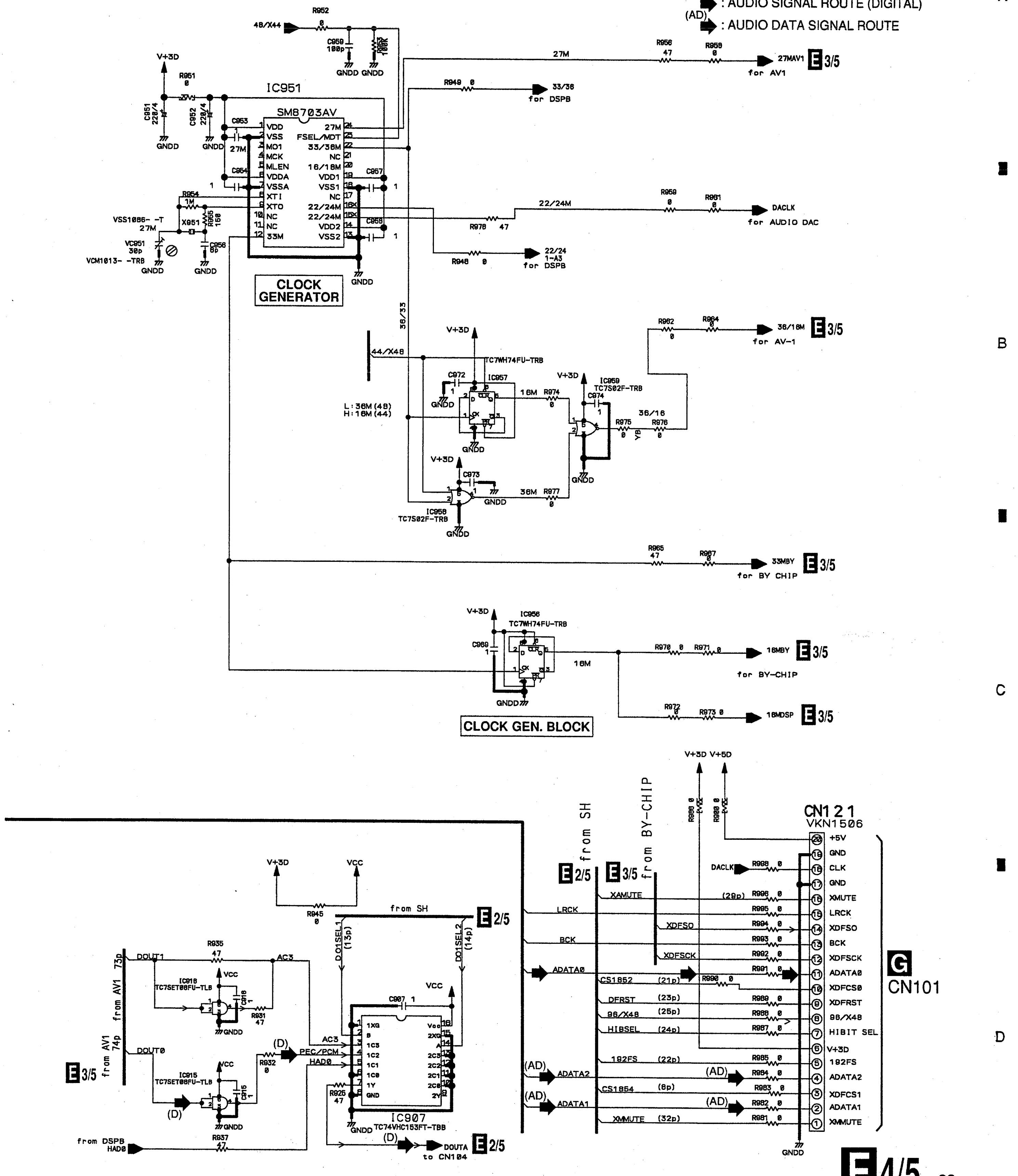
3.6 DVDM ASSY (4/5)



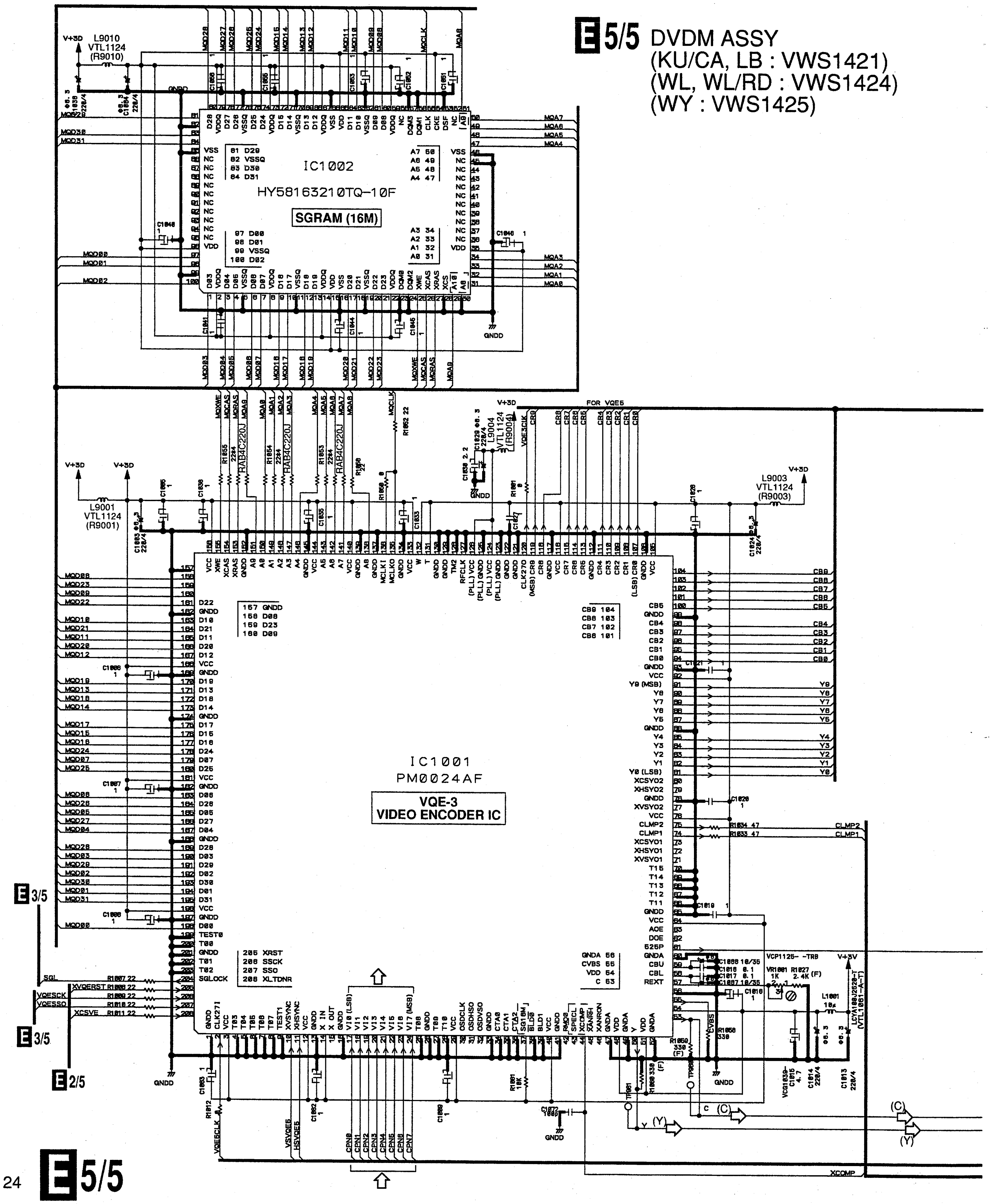
E 4/5 DVDM ASSY
(KU/CA, LB : VWS1421)
(WL, WL/RD : VWS1424)
(WY : VWS1425)

F 2/2 CN1
CN111
VKN1762
to SH 20M
R692 0
E 2/5
(87p)
XCSADSP1 (35p)
XCSADSP0 (34p)
XCSSPD (15p)
DSPA2
DSPA1
DSPA0
ASDAT0
ASDAT1
ASDAT2
ASDAT3
ASDAT4
ASDAT5
ASDAT6
ASDAT7
ASREQ
XAWR
E 3/5
from BY_CHIP (123p-137p)
from SH
E 2/5
(AD)
HAD0
DOUT to IC914
XDFSCK (11p)
DSPICM (18p)
RESET1
SELMOD
E 2/5
HACK (20p)
XDFSI (13p)
HXRST
HCS (19p)
BY_CHIP
E 3/5
GNDD
V+3D
R450 0
C450 100/16
TC7SHU04F-TLB
IC912
C918
R917 22
33/36
GNDD
CN112
VKN1569
E 3/5
to BY_CHIP
DSPEXIST
R911 0
22/24 1-A5
XDFSO (12p)
DI_ERR (31p)
A00DSP
DSPLRCK
(73p)
DOUT1
DSPDO0
DSPDO1
DSPDO2
(69p) AO2
(70p) AO1
DSPBCK
(80p) HBCK
(81p) HLRCK
RESET2
from BY_CHIP
E 3/5
SH
to IC917
to IC904
E 2/5
E 3/5
to IC902
from AV-1
from SH 16p
E 2/5
V+5D
GNDD
F 2/2 CN2
from SH 27pin
E 2/5
AOSEL1
from DSPB
DSPBCK
DSPDO1
DSPDO0
DSPDO2
(AD)
DSPLRCK
HLRCK
E 3/5
from AV1 81p
V+3D
C904
IC904
TC7WH157FU-TRB
SELECT
Vcc
ST
GND
GNDD
205pin
AOSEL0
E 3/5
from AV1 66p, 71p
AO0
AOD
C901
IC901
TC7WH157FU-TRB
GNDD
A00D
HBCK
80p
70p
69p
AO1
AO2
DSPDO2
DSPDO0
HBCK
DSPDO1
DSPBCK
C902
IC902
TC74VHC157FT-TRB
GNDD
(AD)
R913 47 LRCK
R914 47 BCK
R915 47 ADATA2
R916 47 ADATA1
47 ADATA0
R912
IC917
TC7SH08FU-TLB
V+3D
R946 22
C927 1
GNDD
E 2/5 XLPCM
from SH 9pin
A00DSP to DSPB

➡ : AUDIO SIGNAL ROUTE
(D) ➡ : AUDIO SIGNAL ROUTE (DIGITAL)
(AD) ➡ : AUDIO DATA SIGNAL ROUTE

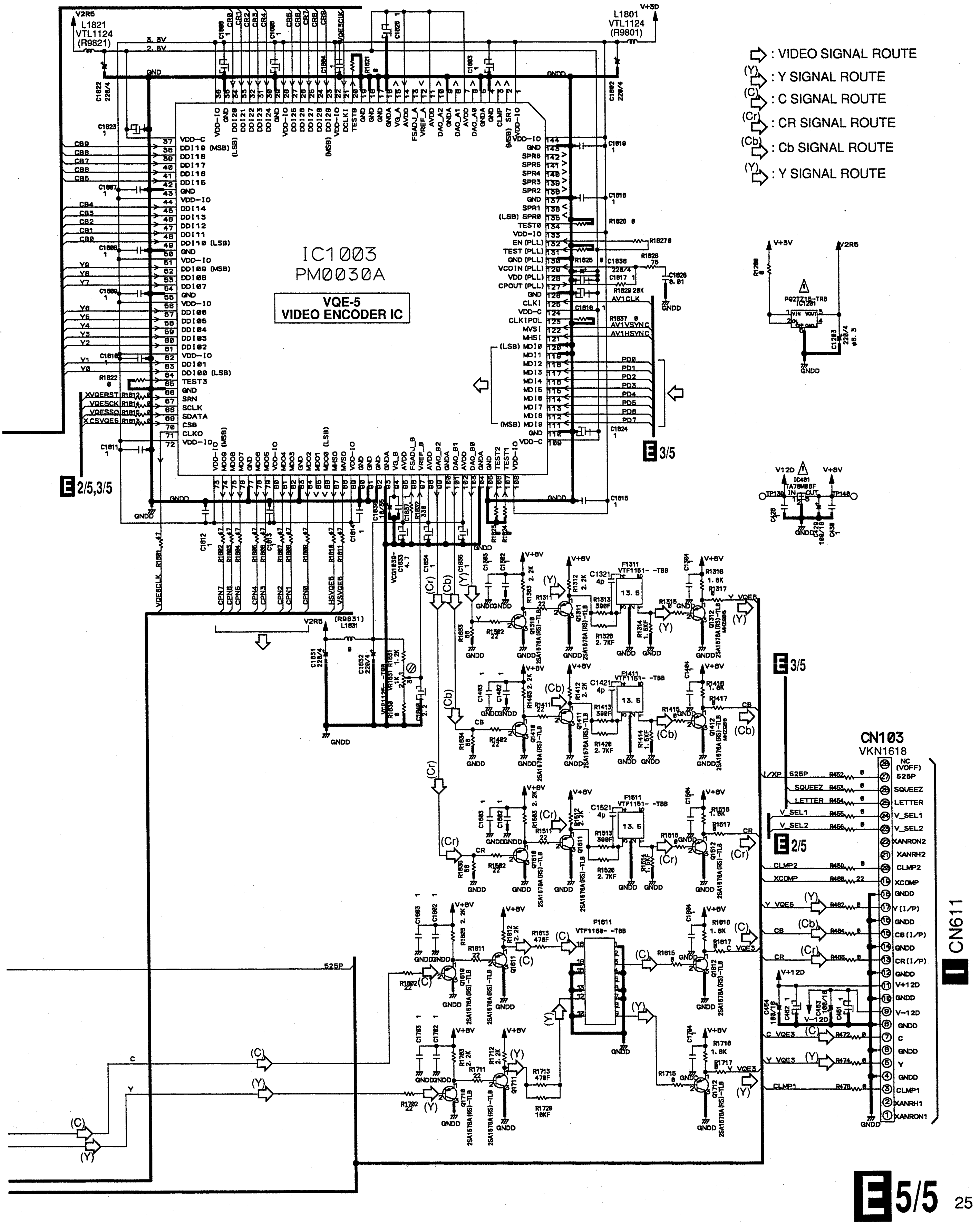

A
B
C
D
48/X44
R952 0
C950 100p
R953 100K
GNDD GNDD
V+3D
R951 0
C951 220/4
C952 220/4
GNDD
IC951
SM8703AV
1 VDD
2 VSS
3 MO1
4 MCK
5 MLEN
6 VDDA
7 VSSA
8 XTI
9 XTO
10 NC
11 NC
12 33M
27M 24
FSEL/MDT 23
33/36M 22
NC 21
16/18M 20
VDD1 19
VSS1 18
NC 17
22/24M 16
22/24M 15
VDD2 14
VSS2 13
C953
C954
C957
C958
27M
R954 1M
R955 100
X951
VSS1086- -T 27M
VC951 30p
VCM1013- -TRB
C956 8p
GNDD
CLOCK GENERATOR
27M
R956 47
R958 0
27MAV1
E 3/5
for AV1
R949 0
33/36
for DSPB
R959 0
R961 0
22/24M
R978 47
DACLK
for AUDIO DAC
R948 0
22/24 1-A3
for DSPB
36/33
44/X48
L:36M(48)
H:16M(44)
V+3D
TC7WH74FU-TRB
C972
IC957
16M
R974 0
V+3D
IC959
TC7S02F-TRB
C974
36/16
R975 0
R976 0
YB
R962 0
R964 0
36/16M
E 3/5
for AV-1
V+3D
C973
36M
R977 0
IC958
TC7S02F-TRB
GNDD
R965 47
R967 0
33MBY
E 3/5
for BY CHIP
V+3D
IC956
TC7WH74FU-TRB
C969
16M
R970 0
R971 0
16MBY
E 3/5
for BY-CHIP
R972 0
R973 0
16MDSP
E 3/5
CLOCK GEN. BLOCK
V+3D V+5D
R980 0
R990 0
from SH
from BY-CHIP
E 2/5
E 3/5
CN121
VKN1506
20 +5V
19 GND
18 CLK
17 GND
16 XMUTE
15 LRCK
14 XDFSO
13 BCK
12 XDFSCK
11 ADATA0
10 XDFCS0
9 XDFRST
8 96/X48
7 HIBIT SEL
6 V+3D
5 192FS
4 ADATA2
3 XDFCS1
2 ADATA1
1 XMMUTE
G
CN101
DACLK
R998 0
XAMUTE
(29p) R996 0
LRCK
R995 0
XDFSO
R994 0
BCK
R993 0
XDFSCK
R992 0
ADATA0
R991 0
CS1852
(21p)
R990 0
DFRST
(23p)
R989 0
96/X48
(25p)
R988 0
HIBSEL
(24p)
R987 0
192FS
(22p)
R985 0
(AD)
ADATA2
R984 0
CS1854
(8p)
R983 0
ADATA1
R982 0
XMMUTE
(32p)
R981 0
GNDD
V+3D
VCC
R945 0
from SH
E 2/5
DO1SEL1 (13p)
DO1SEL2 (14p)
from AV1 73p
from AV1 74p
E 3/5
DOUT1
R935 47
AC3
IC916
TC7SET08FU-TLB
VCC
C918
R931 47
GNDD
DOUT0
IC915
TC7SET08FU-TLB
VCC
C915
R932 0
(D)
PEC/PCM
HAD0
AC3
VCC
C907 1
1XG
B
1C3
1C2
1C1
1C0
1Y
GND
Vcc
2XG
A
2C3
2C2
2C1
2C0
2Y
R925 47
IC907
TC74VHC153FT-TBB
GNDD
from DSPB HAD0
R937 47
(D)
DOUTA
to CN104
E 2/5

3.7 DVDM ASSY (5/5)



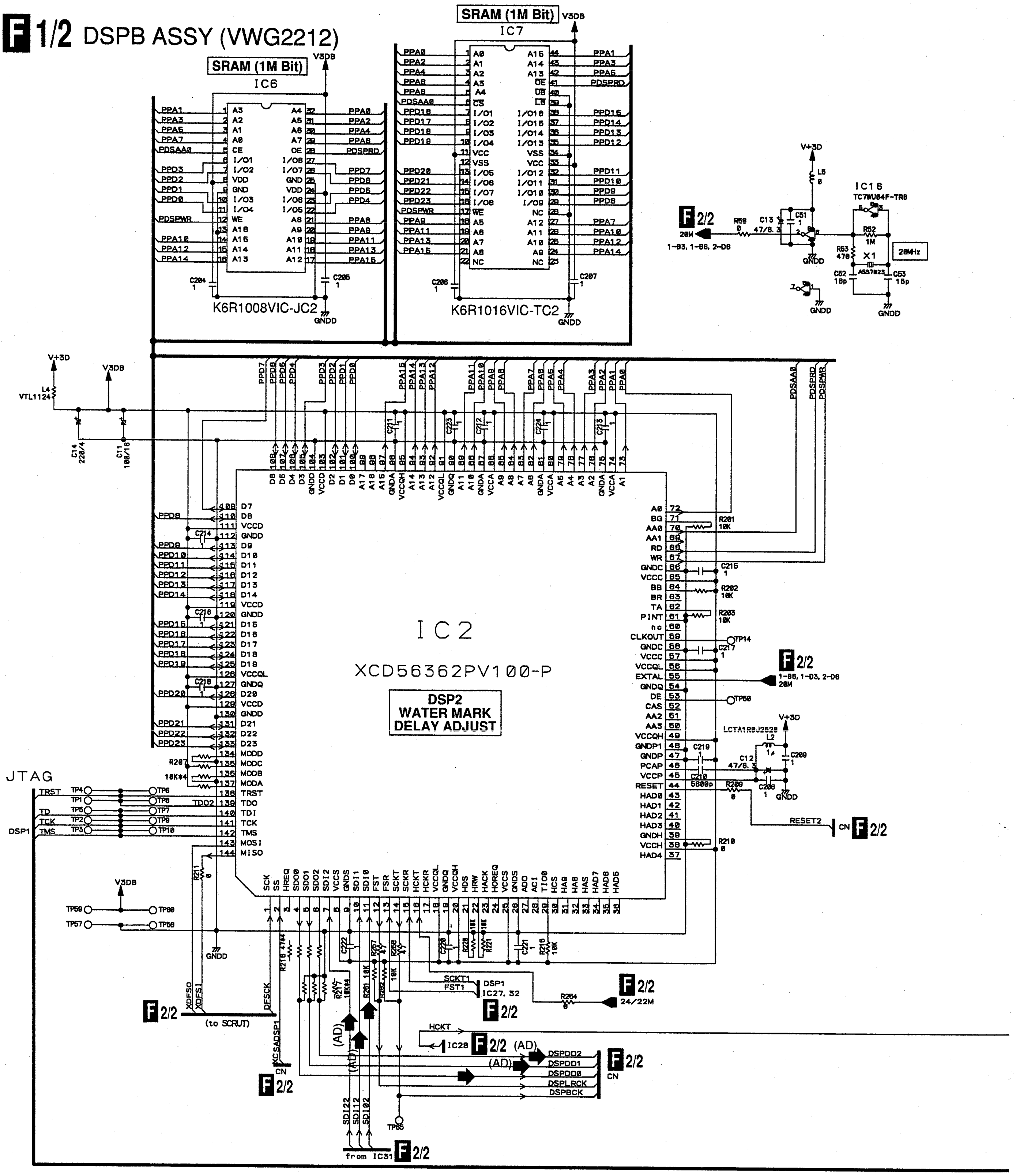
E 5/5 DVDM ASSY
(KU/CA, LB : VWS1421)
(WL, WL/RD : VWS1424)
(WY : VWS1425)

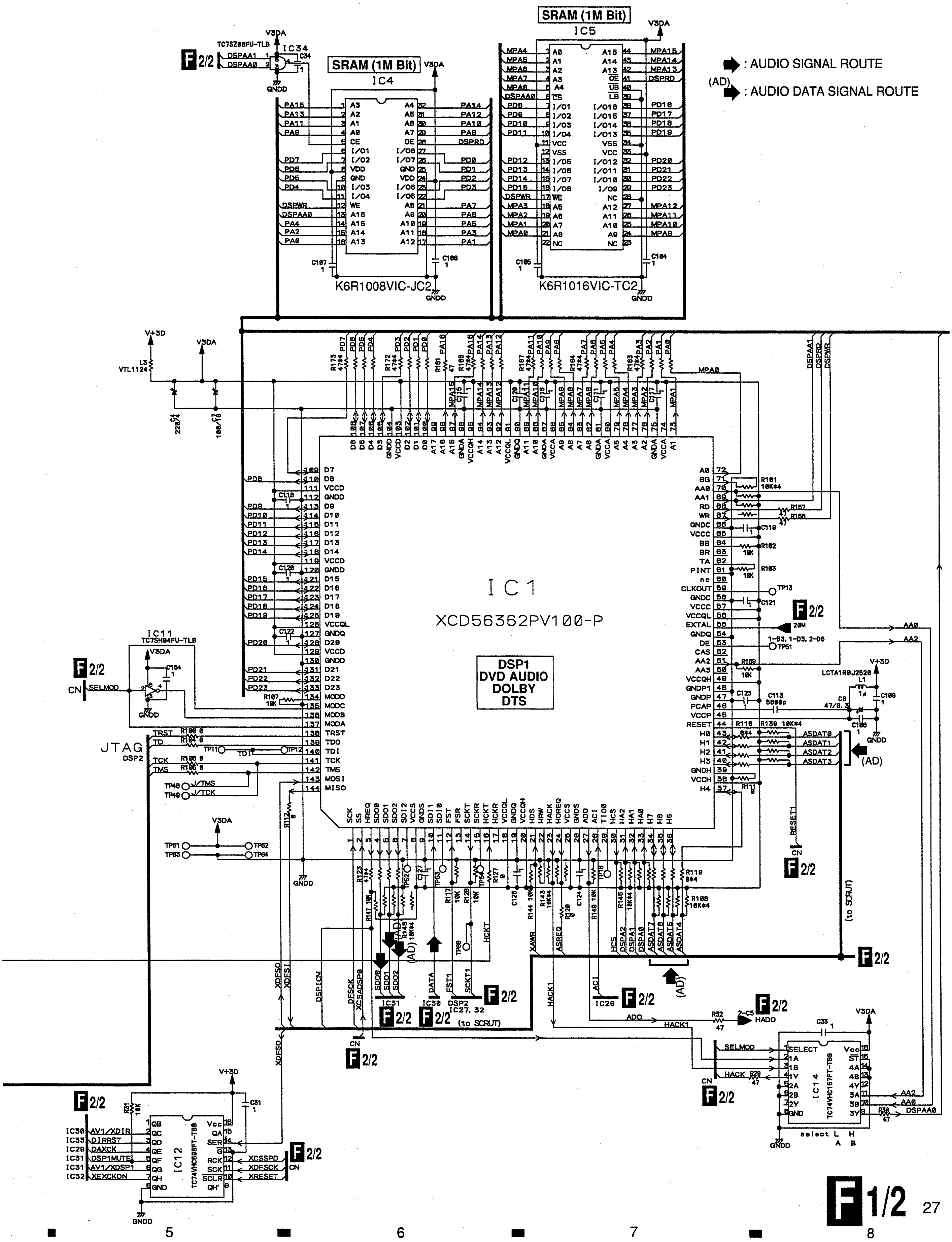
IC1002
HY5816321 0TQ-10F
SGRAM (16M)
IC1001
PM0024AF
VQE-3
VIDEO ENCODER IC
V+3D
L9010
VTL1124
(R9010)
L9001
VTL1124
(R9001)
L9003
VTL1124
(R9003)
L9004
VTL1124
(R9004)
FOR VQE6
GNDD
RAB4C220J
E 3/5
E 3/5
E 2/5
SGL
VQESCK
VQESSO
XVQERST
XCSVE
VQESCLK
VSVQE6
HSVQE6
CLMP2
CLMP1
XCOMP
VCP1125-- -TRB
V+3V
(C)
(Y)


A
B
C
D
: VIDEO SIGNAL ROUTE
(Y) : Y SIGNAL ROUTE
(C) : C SIGNAL ROUTE
(Cr) : CR SIGNAL ROUTE
(Cb) : Cb SIGNAL ROUTE
(Y) : Y SIGNAL ROUTE
IC1003
PM0030A
VQE-5
VIDEO ENCODER IC
L1821
VTL1124
(R9821)
L1801
VTL1124
(R9801)
V2R5
V+3D
3.3V
2.5V
GND
GNDD
E 2/5,3/5
E 3/5
E 2/5
PQ2TZ15-TR8
IC1201
V+3V
V2R5
IC401
TA78M08F
V12D
V+8V
XVQERST
VQESCK
VQESSO
XCSVQE5
VQESCLK
F1311
VTF1151- -TB8
F1411
F1511
F1611
VTF1160- -TB8
13.5
Y VQE5
C VQE3
Y VQE3
525P
C
Y
CB
CR
CN103
VKN1618
NC (VOFF)
525P
SQUEEZ
LETTER
V_SEL1
V_SEL2
XANRON2
XANRH2
CLMP2
XCOMP
GNDD
Y (I/P)
GNDD
CB (I/P)
GNDD
CR (I/P)
GNDD
V+12D
GNDD
V-12D
GNDD
C
GNDD
Y
GNDD
CLMP1
XANRH1
XANRON1
CN611
I

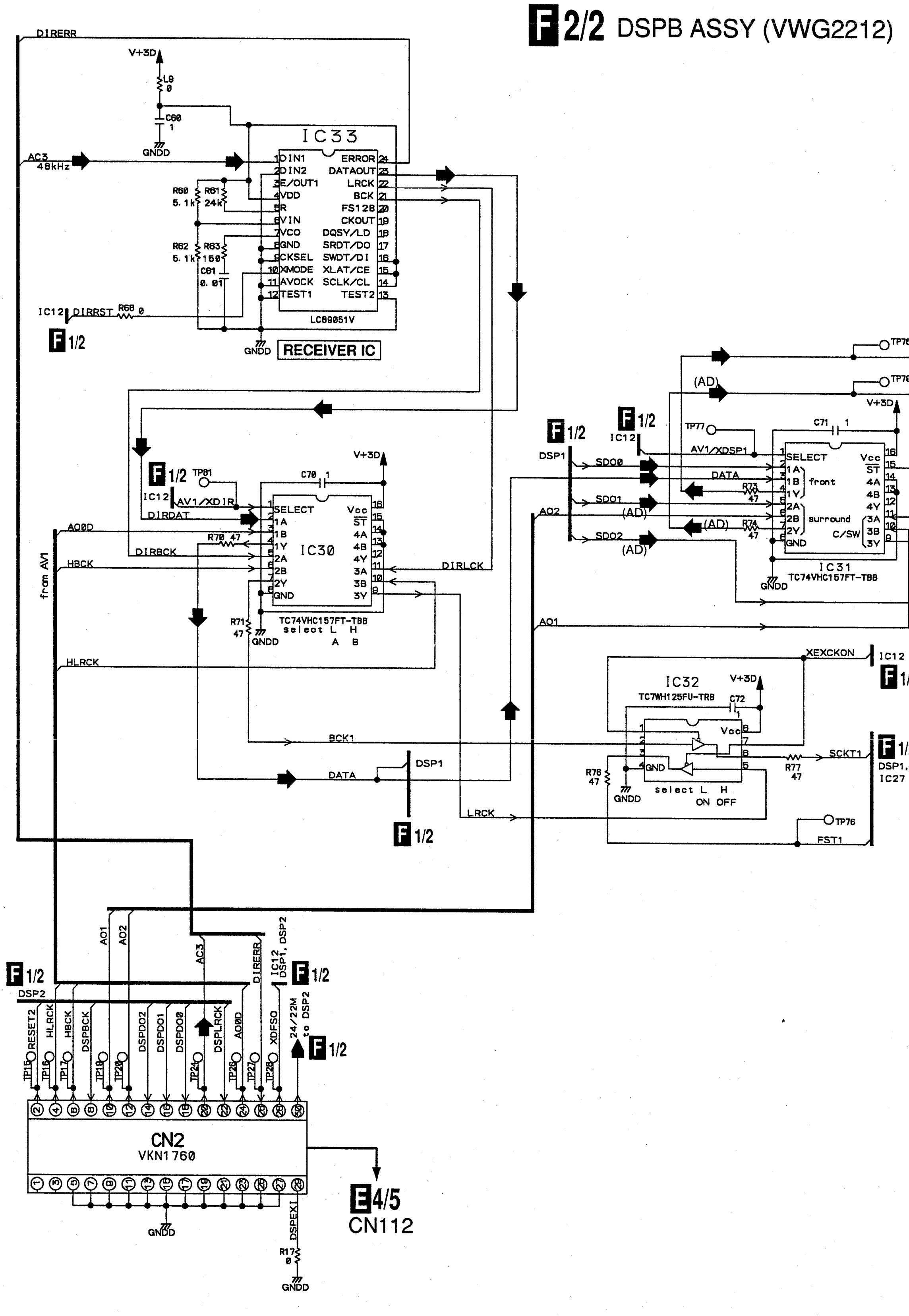
3.8 DSPB ASSY (1/2)

F 1/2 DSPB ASSY (VWG2212)


SRAM (1M Bit)
IC6
K6R1008VIC-JC2
SRAM (1M Bit)
IC7
K6R1016VIC-TC2
V3DB
V+3D
GNDD
IC16
TC7WU04F-TRB
X1
20MHz
F 2/2
20M
1-B3, 1-B6, 2-D6
L4
VTL1124
C14
220/4
C11
100/16
IC2
XCD56362PV100-P
DSP2
WATER MARK
DELAY ADJUST
F 2/2
1-B6, 1-D3, 2-D6
20M
LCTA1R0J2520
L2
RESET2
CN F 2/2
JTAG
DSP1
TRST
TD
TCK
TMS
TDO2
F 2/2
XDFSO
XDFS1
DFSCK
(to SCRUT)
XCSADSP1
CN
F 2/2
SCKT1
FST1
DSP1
IC27, 32
F 2/2
24/22M
HCKT
IC28
F 2/2
(AD)
DSPDO2
DSPDO1
DSPDO0
DSPLRCK
DSPBCK
F 2/2
CN
SDI22
SDI12
SDI02
from IC31
F 2/2
TP65


A
B
C
D
: AUDIO SIGNAL ROUTE
(AD) : AUDIO DATA SIGNAL ROUTE
SRAM (1M Bit)
IC4
K6R1008VIC-JC2
SRAM (1M Bit)
IC5
K6R1016VIC-TC2
IC34
TC7SZ08FU-TLB
V3DA
GNDD
V+3D
L3
VTL1124
IC1
XCD56362PV100-P
DSP1
DVD AUDIO
DOLBY
DTS
IC11
TC7SH04FU-TLB
SELMOD
JTAG
DSP2
TRST
TD
TCK
TMS
TP11
TDI
TP12
TP48
TP49
TP61
TP62
TP63
TP64
TP13
TP51
20M
1-B3, 1-D3, 2-D6
LCTA1R0J2520
ASDAT0
ASDAT1
ASDAT2
ASDAT3
RESET1
(to SCRUT)
AA0
AA2
DSPAA1
DSPRD
DSPWR
MPA0
XDFS0
XDFS1
DSPICM
DFSCK
XCSADSP0
SDO0
SDO1
SDO2
DATA
FST1
SCKT1
HCKT
XAWR
ASREQ
HACK1
ACI
HCS
DSPA2
DSPA1
DSPA0
ASDAT7
ASDAT6
ASDAT5
ASDAT4
IC31
IC30
DSP2
IC27, 32
(to SCRUT)
IC29
ADO
R32
47
2-C5
HADO
HACK1
SELMOD
HACK R29 47
IC14
TC74VHC157FT-TB8
select L H
A B
DSPAA0
IC12
TC74VHC595FT-TB8
IC30 AV1/XDIR
IC33 DIRRST
IC29 DAXCK
IC31 DSP1MUTE
IC31 AV1/XDSP1
IC32 XEXCKON
XCSSPD
XDFSCK
XRESET
CN
F 2/2

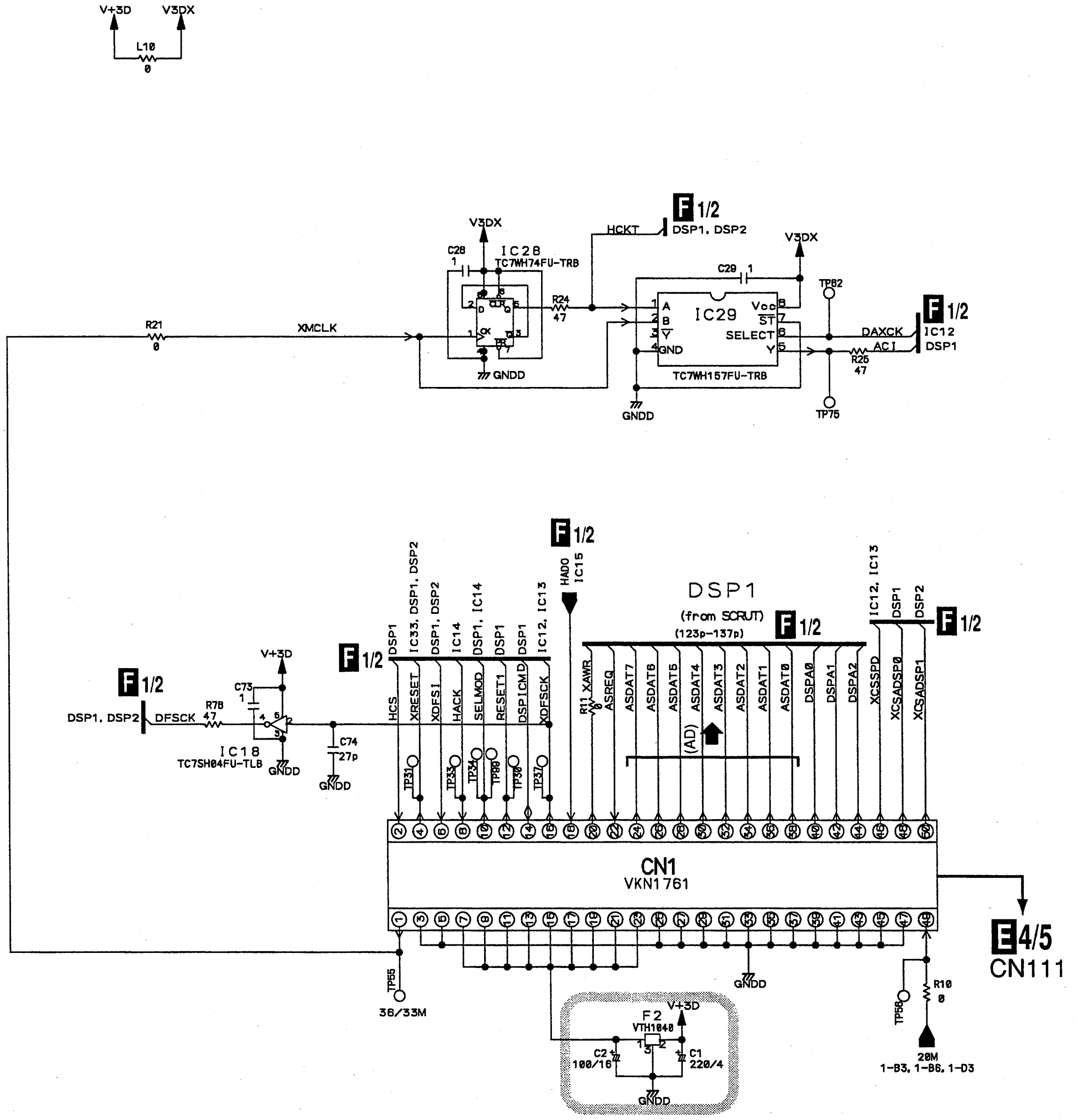
3.9 DSPB ASSY (2/2)


F 2/2 DSPB ASSY (VWG2212)
DIRERR
V+3D
L9 0
C80 1
GNDD
AC3 48kHz
IC33
DIN1
DIN2
E/OUT1
VDD
R
VIN
VCO
GND
CKSEL
XMODE
AVOCK
TEST1
ERROR
DATAOUT
LRCK
BCK
FS128
CKOUT
DQSY/LD
SRDT/DO
SWDT/DI
XLAT/CE
SCLK/CL
TEST2
LC89051V
R60 5.1k
R61 24k
R62 5.1k
R63 150
C81 0.01
IC12 DIRRST R68 0
F 1/2
RECEIVER IC
F 1/2 TP81
IC12 AV1/XDIR
DIRDAT
AO0D
R70 47
DIRBCK
HBCK
from AV1
C70 1
SELECT
1A
1B
1Y
2A
2B
2Y
GND
Vcc
ST
4A
4B
4Y
3A
3B
3Y
IC30
TC74VHC157FT-TBB
select L H
A B
R71 47
DIRLCK
HLRCK
BCK1
DATA
DSP1
F 1/2
LRCK
F 1/2
DSP1
IC12
SD00
SD01
SD02
AO2
(AD)
TP77
AV1/XDSP1
C71 1
DATA
R73 47
R74 47
front
surround
C/SW
IC31
TC74VHC157FT-TBB
TP78
TP79
SDI02
SDI12
SDI22
DSP2
F 1/2
DSP1MUTE IC12
R75 47
TP80
AO1
XEXCKON IC12
F 1/2
IC32
TC7WH125FU-TRB
C72
R76 47
R77 47
SCKT1
F 1/2
DSP1, 2
IC27
select L H
ON OFF
TP76
FST1
F 1/2
DSP2
AO1
AO2
AC3
DIRERR
IC12 DSP1, DSP2
F 1/2
RESET2
HLRCK
HBCK
DSPBCK
DSPD02
DSPD01
DSPD00
DSPLRCK
AO0D
XDFSO
24/22M to DSP2
F 1/2
TP15
TP16
TP17
TP18
TP20
TP24
TP26
TP27
TP28
CN2
VKN1760
DSPEXI
R17 0
GNDD
E 4/5
CN112

▭ : The power supply is shown with the marked box.

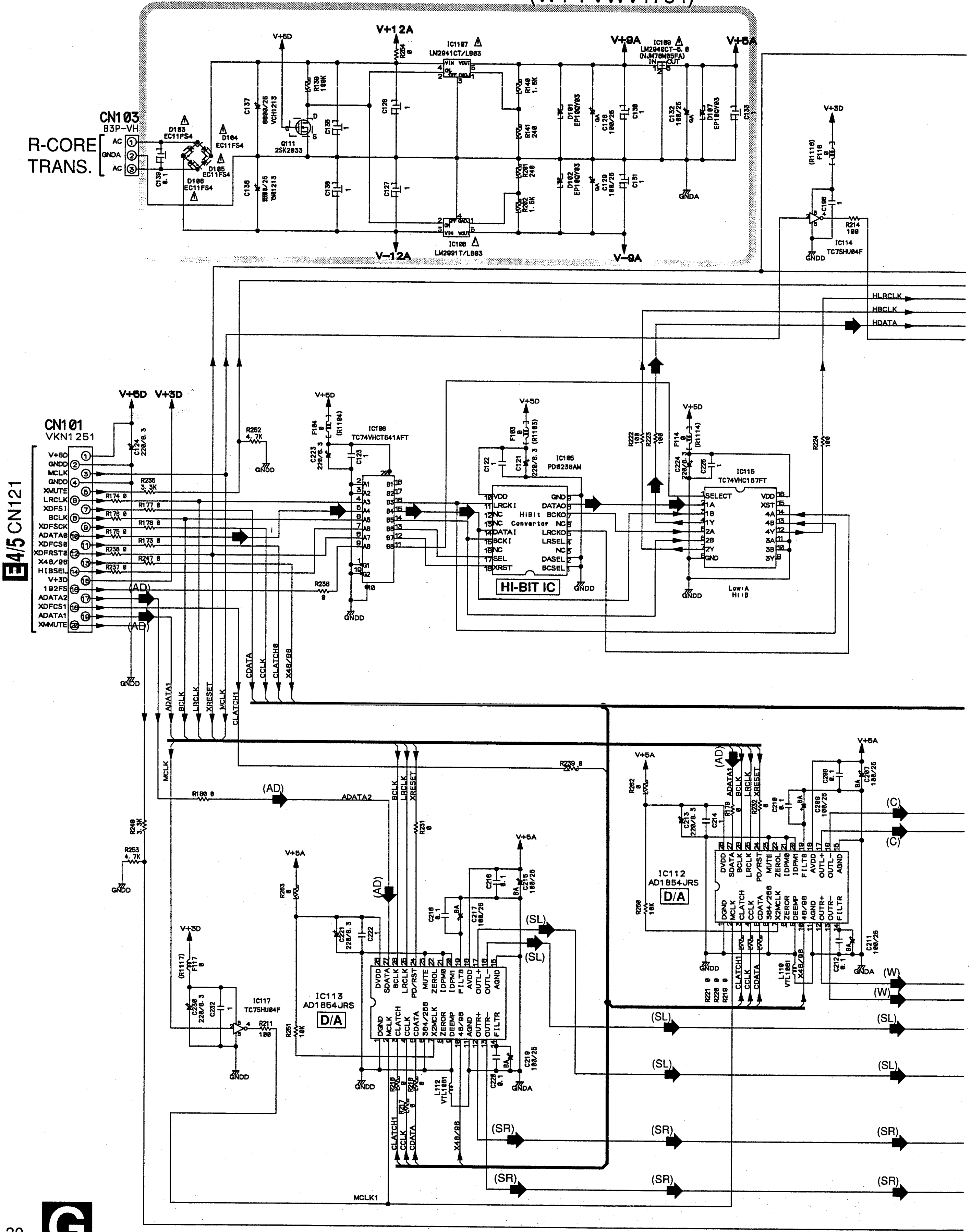
➡ : AUDIO SIGNAL ROUTE

(AD) ➡ : AUDIO DATA SIGNAL ROUTE


V+3D
V3DX
L10
0
F 1/2
HCKT
DSP1, DSP2
V3DX
C28
1
IC28
TC7WH74FU-TRB
R24
47
C29 1
IC29
Vcc
ST
SELECT
GND
TC7WH157FU-TRB
TP82
DAXCK
ACI
R26
47
IC12
DSP1
TP75
GNDD
R21
0
XMCLK
F 1/2
HADO
IC15
DSP1
(from SCRUT)
(123p-137p)
IC12, IC13
DSP1
DSP2
DSP1
IC33, DSP1, DSP2
DSP1, DSP2
IC14
DSP1, IC14
DSP1
DSP1
IC12, IC13
HCS
XRESET
XDFSI
HACK
SELMOD
RESET1
DSPICMD
XDFSCK
R11 XAWR
0
ASREQ
ASDAT7
ASDAT6
ASDAT5
ASDAT4
ASDAT3
ASDAT2
ASDAT1
ASDAT0
DSPA0
DSPA1
DSPA2
XCSSPD
XCSADSP0
XCSADSP1
(AD)
TP31
TP33
TP34
TP89
TP36
TP37
DSP1, DSP2
DFSCK
R78
47
C73
1
IC18
TC7SH04FU-TLB
C74
27p
CN1
VKN1761
E 4/5
CN111
TP55
38/33M
V+3D
F2
VTH1040
C2
100/16
C1
220/4
TP56
R10
0
20M
1-B3, 1-B6, 1-D3

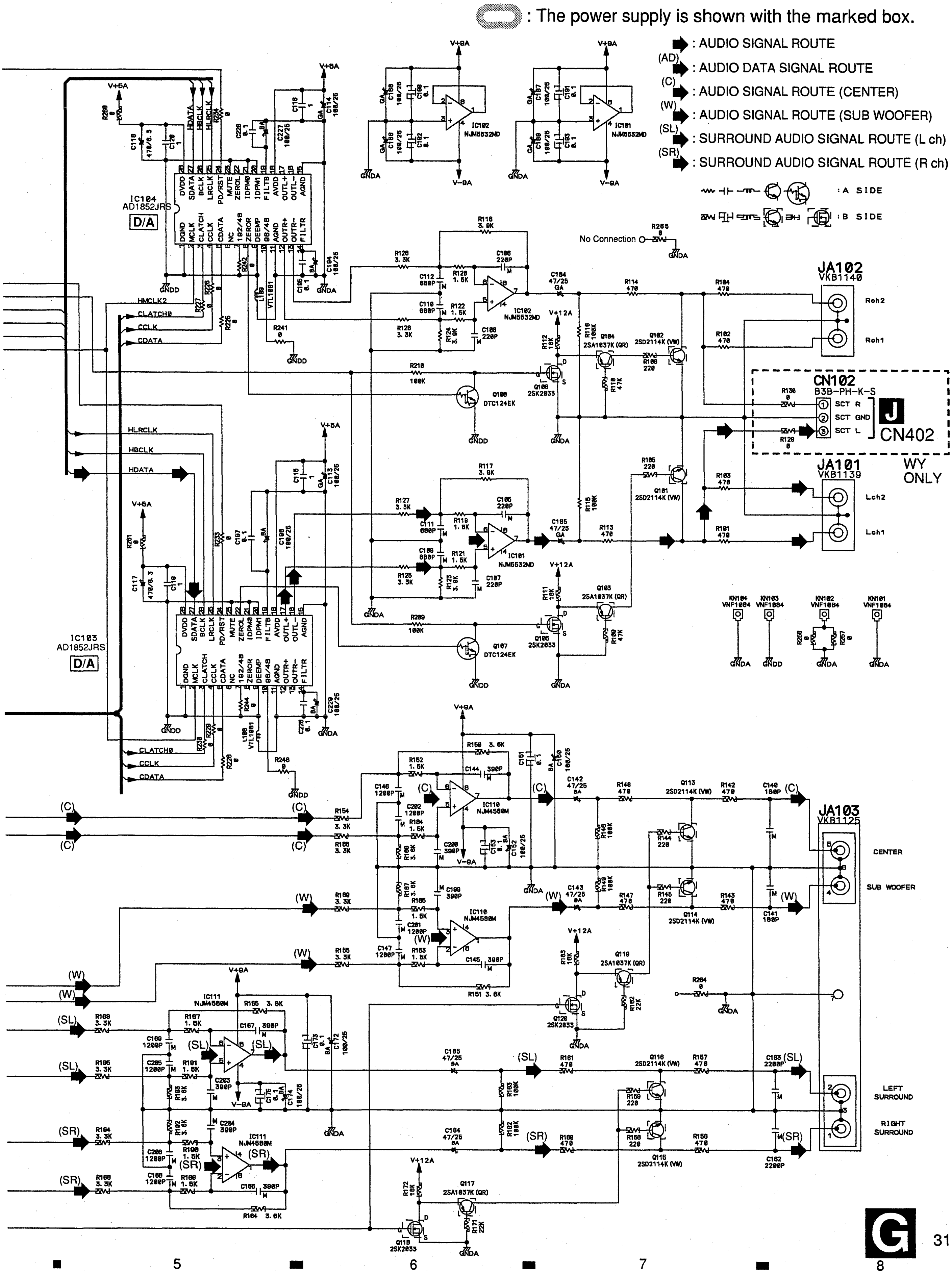
3.10 AJKB ASSY

G AJKB ASSY
(KU/CA, LB, WL, WL/RD : VWV1763)
(WY : VWV1764)



CN103
B3P-VH
R-CORE TRANS.
AC
GNDA
AC
D103 EC11FS4
D104 EC11FS4
D105 EC11FS4
D106 EC11FS4
C139 0.1
C137 6800/25
C138 6800/25
VCH1213
Q111 2SK2033
R139 100K
C135
C136
V+5D
V+12A
V-12A
R254 0
IC107 LM2941CT/LB03
IC108 LM2991T/LB03
C128
C127
R140 1.5K
R141 240
R201 240
R202 1.5K
D101 EP10QY03
D102 EP10QY03
C129 100/25
C130 100/25
C131
C133
V+9A
V-9A
IC109 LM2940CT-5.0 (NJM78M05FA)
V+5A
C132 100/25
D107 EP10QY03
C133
GNDA
V+3D
(R1118)
F116 0
C198
R214 100
IC114 TC7SHU04F
GNDD
HLRCLK
HBCLK
HDATA
CN101
VKN1251
E 4/5 CN121
V+5D
GNDD
MCLK
GNDD
XMUTE
LRCLK
XDFSI
BCLK
XDFSCK
ADATA0
XDFCS0
XDFRST0
X48/96
HIBSEL
V+3D
192FS
ADATA2
XDFCS1
ADATA1
XMMUTE
V+5D V+3D
C124 220/6.3
R235 3.3K
R174 0
R177 0
R178 0
R176 0
R175 0
R173 0
R236 0
R247 0
R237 0
R252 4.7K
(AD)
GNDD
IC106 TC74VHCT541AFT
F104 0 (R1104)
C223 220/6.3
C123 1
R238 0
IC105 PD0238AM
F103 0 (R1103)
C122 1
C121 220/6.3
VDD
LRCKI
NC
DATAI
BCKI
NC
SEL
XRST
GND
DATAO
BCKO
NC
LRCKO
LRSEL
NC
DASEL
BCSEL
HiBit Convertor
HI-BIT IC
R222 100
R223 100
F114 0 (R1114)
C224 220/6.3
C225 1
IC115 TC74VHC157FT
SELECT
1A
1B
1Y
2A
2B
2Y
GND
VDD
XST
4A
4B
4Y
3A
3B
3Y
Low:A Hi:B
R224 100
CDATA
CCLK
CLATCH0
X48/96
ADATA1
BCLK
LRCLK
XRESET
MCLK
CLATCH1
R240 3.3K
R253 4.7K
R100 0
ADATA2
R239 0
R231 0
R263 10K
C221 220/6.3
C222 1
V+5A
C218 0.1
C215 100/25
C216 0.1
C217 100/25
IC113 AD1854JRS
D/A
DVDD
SDATA
BCLK
LRCLK
PD/RST
MUTE
ZEROL
IDPM0
FILTB
AVDD
OUTL+
OUTL-
AGND
DGND
MCLK
CLATCH
CCLK
CDATA
384/256
X2MCLK
ZEROR
DEEMP
48/96
AGND
OUTR+
OUTR-
FILTR
(SL)
(SR)
(C)
(W)
R261 10K
V+3D
(R1117)
F117 0
C230 220/6.3
C232 1
IC117 TC7SHU04F
R211 100
C220 0.1
C219 100/25
L112 VTL1061
R216 0
R217 0
R218 0
CLATCH1
CCLK
CDATA
X48/96
MCLK1
R262 0
C213 220/6.3
C214 1
R179 0
R232 0
C210 0.1
C208 0.1
C209 100/25
C207 100/25
IC112 AD1854JRS
D/A
R260 10K
R221 0
R220 0
R219 0
L110 VTL1061
C212 0.1
C211 100/25
8A

DV-38A, DV-S88A, DV-S838A, DV-939A



: The power supply is shown with the marked box.

- : AUDIO SIGNAL ROUTE
- (AD) : AUDIO DATA SIGNAL ROUTE
- (C) : AUDIO SIGNAL ROUTE (CENTER)
- (W) : AUDIO SIGNAL ROUTE (SUB WOOFER)
- (SL) : SURROUND AUDIO SIGNAL ROUTE (L ch)
- (SR) : SURROUND AUDIO SIGNAL ROUTE (R ch)

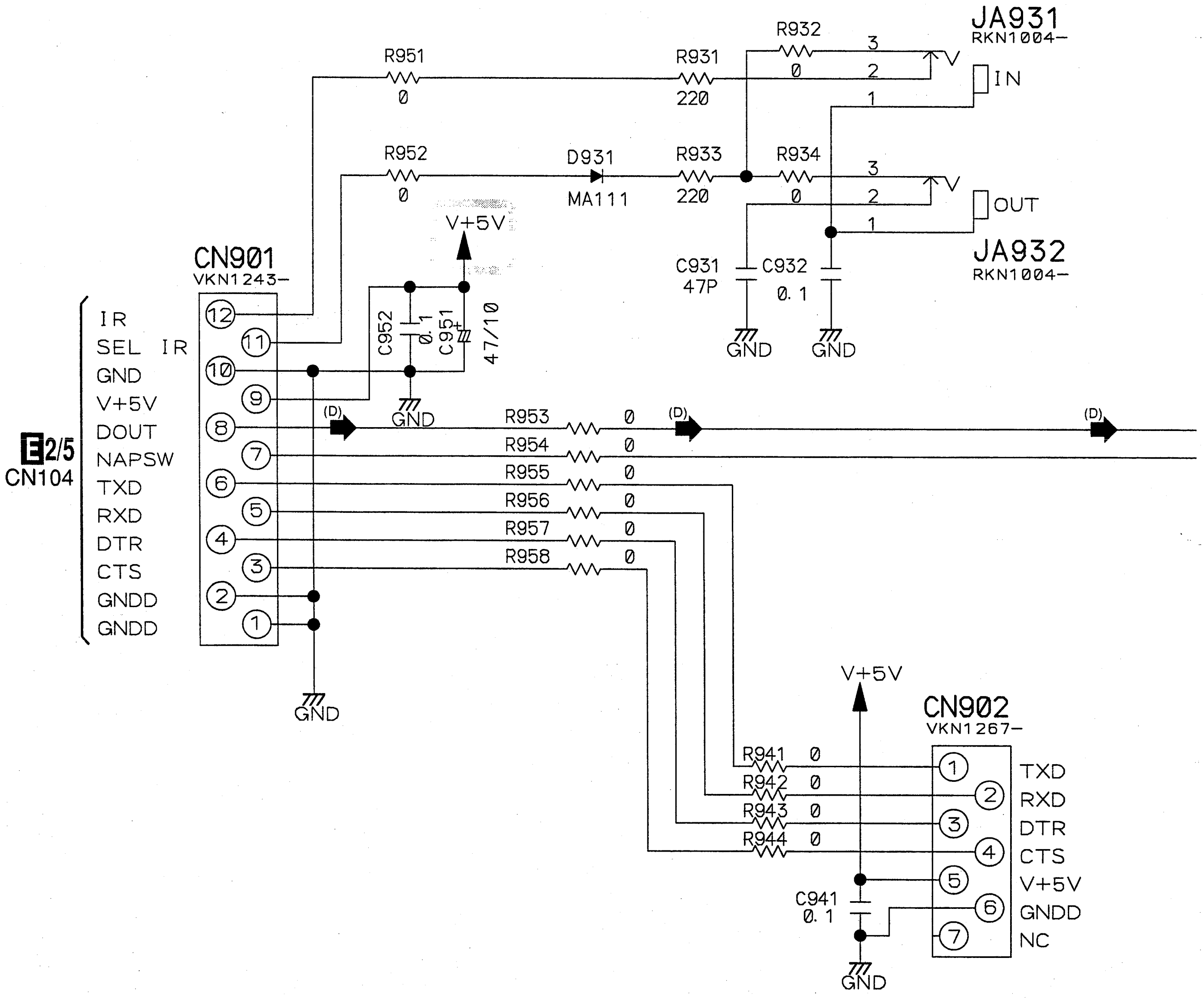
:A SIDE

:B SIDE

A
B
C
D
IC104
AD1852JRS
D/A
IC103
AD1852JRS
D/A
DVDD SDATA BCLK LRCLK PD/RST MUTE ZEROL IDPM0 IDPM1 FILTB AVDD OUTL+ OUTL- AGND
DGND MCLK CLATCH CCLK CDATA NC 192/48 ZEROR DEEMP 96/48 AGND OUTR+ OUTR- FILTR
HMCLK2
CLATCH0
CCLK
CDATA
HLRCLK
HBCLK
HDATA
HDATA
HBCLK
HLRCLK
V+5A
V+9A
V-9A
V+12A
GNDA
GNDD
IC102 NJM5532MD
IC101 NJM5532MD
IC110 NJM4580M
IC111 NJM4580M
Q100 DTC124EK
Q107 DTC124EK
Q106 2SK2033
Q105 2SK2033
Q120 2SK2033
Q118 2SK2033
Q104 2SA1037K (QR)
Q103 2SA1037K (QR)
Q119 2SA1037K (QR)
Q117 2SA1037K (QR)
Q102 2SD2114K (VW)
Q101 2SD2114K (VW)
Q113 2SD2114K (VW)
Q114 2SD2114K (VW)
Q116 2SD2114K (VW)
Q115 2SD2114K (VW)
L100 VTL1001
L108 VTL1001
No Connection
R265 0
JA102
VKB1140
Roh2
Roh1
CN102
B3B-PH-K-S
SCT R
SCT GND
SCT L
J
CN402
WY ONLY
JA101
VKB1139
Loh2
Loh1
KN104 VNF1084
KN103 VNF1084
KN102 VNF1084
KN101 VNF1084
JA103
VKB1125
CENTER
SUB WOOFER
LEFT SURROUND
RIGHT SURROUND
(C)
(W)
(SL)
(SR)
R264 0

3.11 DJKB ASSY

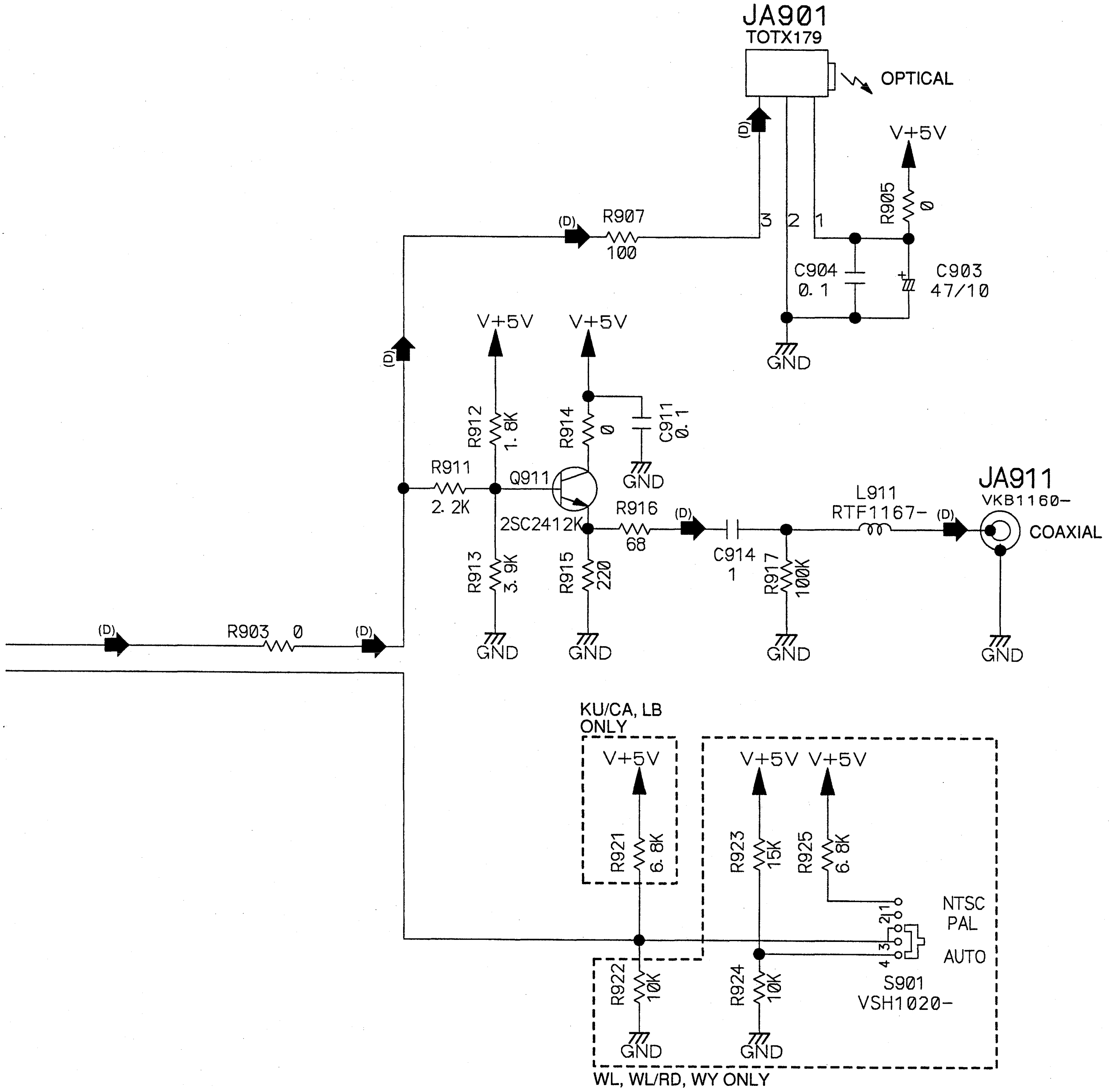
H DJKB ASSY
(KU/CA, LB : VWV1797)
(WL, WL/RD, WY : VWV1798)



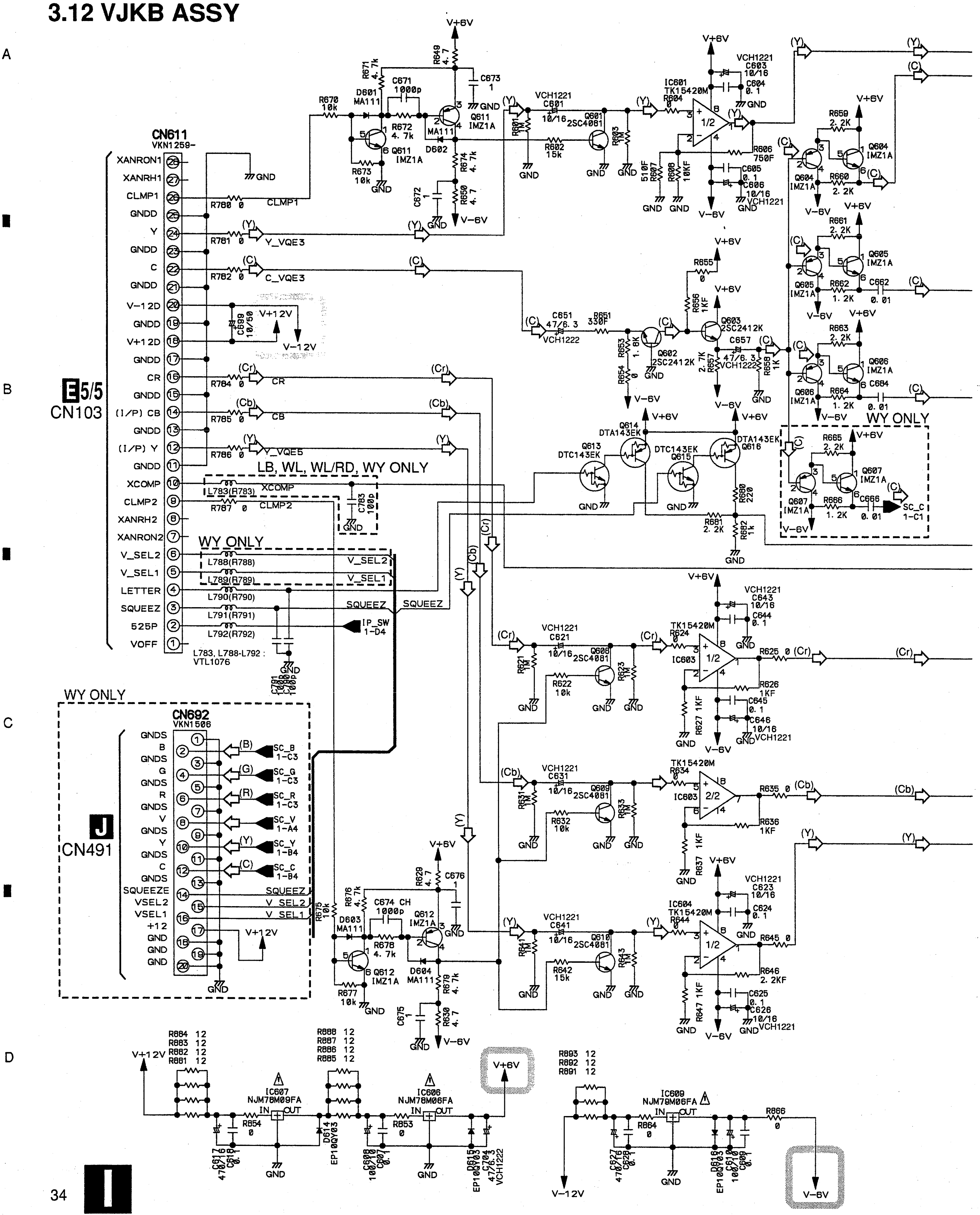
JA931
RKN1004-
IN
JA932
RKN1004-
OUT
R932
0
R931
220
R951
0
R952
0
D931
MA111
R933
220
R934
0
3
2
1
C931
47P
C932
0.1
GND
V+5V
CN901
VKN1243-
C952
0.1
C951
47/10
IR
SEL IR
GND
V+5V
DOUT
NAPSW
TXD
RXD
DTR
CTS
GNDD
GNDD
E 2/5
CN104
(D)
R953 0
R954 0
R955 0
R956 0
R957 0
R958 0
CN902
VKN1267-
R941 0
R942 0
R943 0
R944 0
TXD
RXD
DTR
CTS
V+5V
GNDD
NC
C941
0.1

(D) : AUDIO SIGNAL ROUTE (DIGITAL)

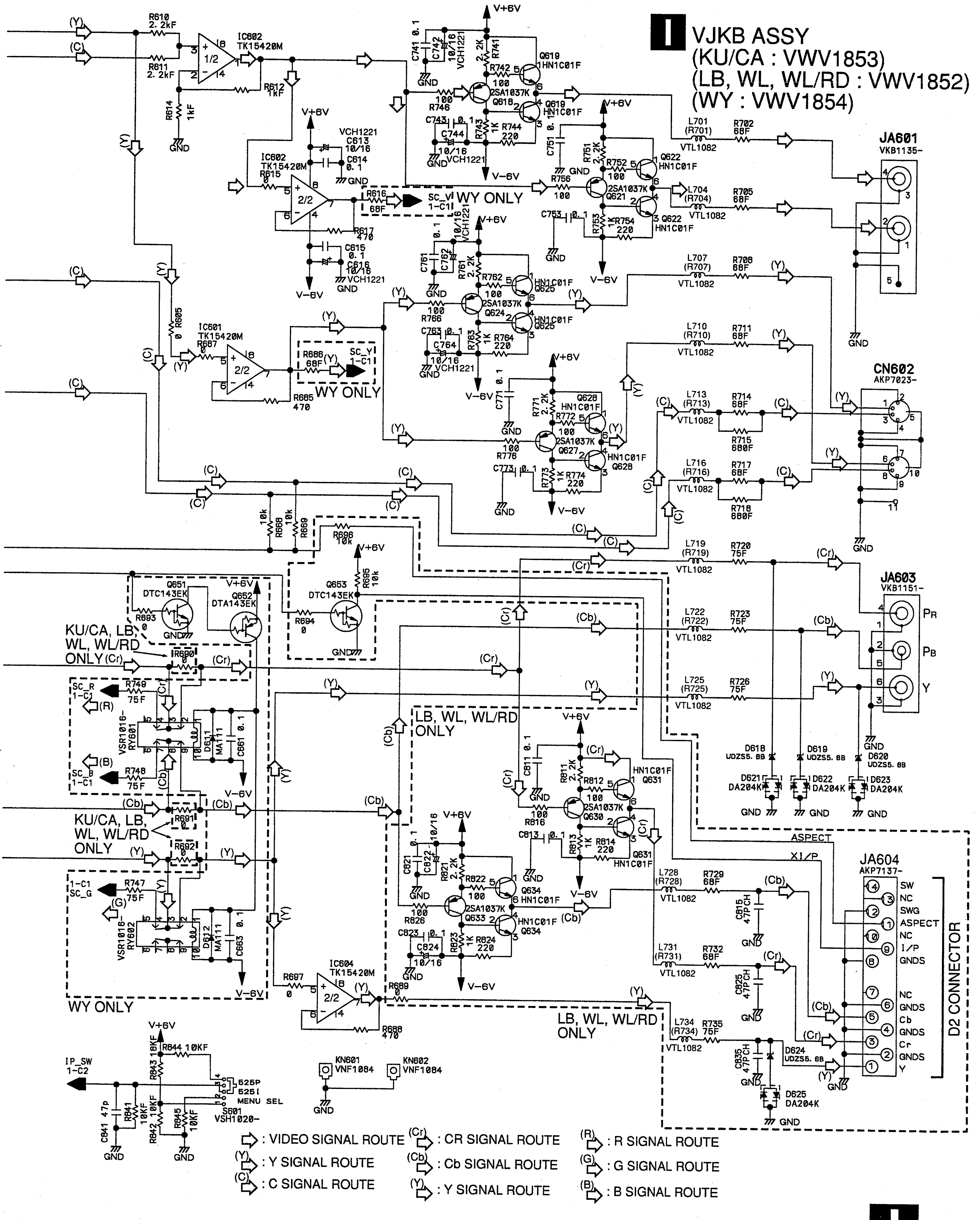
: The power supply is shown with the marked box.


JA901
TOTX179
OPTICAL
V+5V
R905
0
3
2
1
(D)
R907
100
C904
0.1
C903
47/10
GND
V+5V
V+5V
R912
1.8K
R914
0
C911
0.1
GND
R911
2.2K
Q911
2SC2412K
R916
68
C914
1
L911
RTF1167-
JA911
VKB1160-
COAXIAL
R913
3.9K
R915
220
R917
100K
GND
GND
GND
GND
R903 0
KU/CA, LB ONLY
V+5V
R921
6.8K
V+5V V+5V
R923
15K
R925
6.8K
NTSC
PAL
AUTO
S901
VSH1020-
R922
10K
R924
10K
GND
GND
WL, WL/RD, WY ONLY

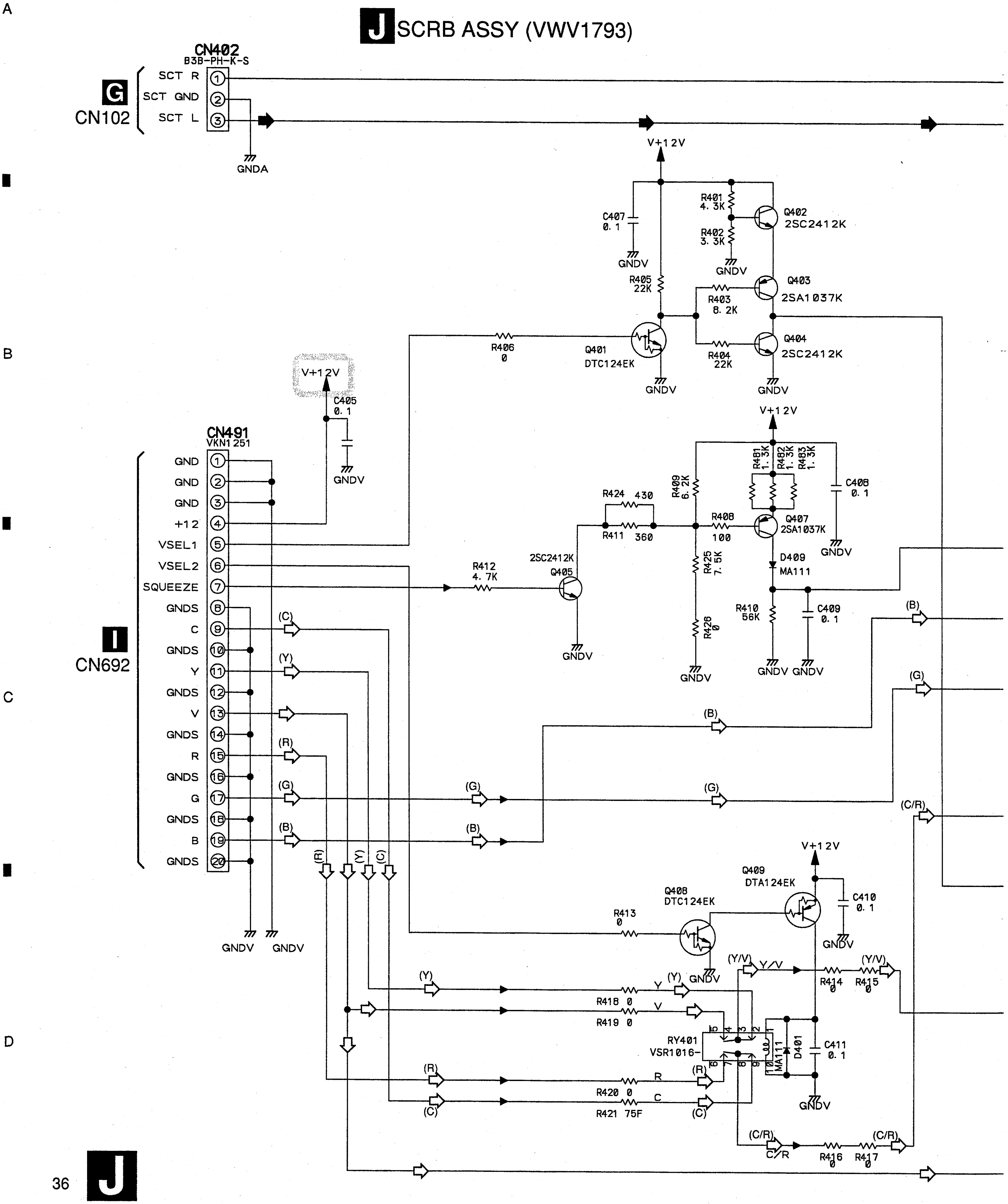
3.12 VJKB ASSY


A
B
C
D
CN611
VKN1259-
XANRON1 28
XANRH1 27
CLMP1 26
GNDD 25
Y 24
GNDD 23
C 22
GNDD 21
V-12D 20
GNDD 19
V+12D 18
GNDD 17
CR 16
GNDD 15
(I/P) CB 14
GNDD 13
(I/P) Y 12
GNDD 11
XCOMP 10
CLMP2 9
XANRH2 8
XANRON2 7
V_SEL2 6
V_SEL1 5
LETTER 4
SQUEEZ 3
525P 2
VOFF 1
E 5/5
CN103
R780 0
CLMP1
R781 0
Y_VQE3
R782 0
C_VQE3
C699 10/50
V+12V
V-12V
R784 0
CR
R785 0
CB
R786 0
Y_VQE5
LB, WL, WL/RD, WY ONLY
L783(R783)
XCOMP
C783 100p
R787 0
CLMP2
WY ONLY
L788(R788)
L789(R789)
V_SEL2
V_SEL1
L790(R790)
L791(R791)
L792(R792)
SQUEEZ
IP_SW 1-D4
L783, L788-L792 : VTL1076
C791 1000p
C792 100p
GND
V+6V
R649 4.7
R671 4.7k
C671 1000p
C673 1
D601 MA111
R670 10k
Q611 IMZ1A
R672 4.7k
MA111
D602
R673 10k
R674 4.7k
C672 1
R650 4.7
V-6V
VCH1221
C601 10/16
R601 1M
Q601 2SC4081
R602 15k
R603 1M
IC601 TK15420M
R604 0
1/2
C603 10/16
C604 0.1
R606 750F
R607 510F
R608 10KF
C605 0.1
C606 10/16
R659 2.2K
Q604 IMZ1A
R660 2.2K
R661 2.2K
Q605 IMZ1A
R662 1.2K
C662 0.01
R663 2.2K
Q606 IMZ1A
R664 1.2K
C664 0.01
WY ONLY
R665 2.2K
Q607 IMZ1A
R666 1.2K
C666 0.01
SC_C 1-C1
R655 0
R656 1KF
C651 47/6.3
VCH1222
R651 330F
R653 1.8K
R654 0
Q602 2SC2412K
Q603 2SC2412K
C657 47/6.3
R657 2.7K
R658 1K
Q614 DTA143EK
Q613 DTC143EK
Q615 DTC143EK
Q616 DTA143EK
R680 220
R681 2.2K
R682 1k
(Y)
(C)
(Cr)
(Cb)
VCH1221
C621 10/16
R621 1M
Q608 2SC4081
R622 10k
R623 1M
TK15420M
R624 0
IC603
1/2
C643 10/16
C644 0.1
R625 0
R626 1KF
R627 1KF
C645 0.1
C646 10/16
C631 10/16
R631 1M
Q609 2SC4081
R632 10k
R633 1M
R634 0
2/2
R635 0
R636 1KF
R637 1KF
CN692
VKN1506
GNDS 1
B 2
GNDS 3
G 4
GNDS 5
R 6
GNDS 7
V 8
GNDS 9
Y 10
GNDS 11
C 12
GNDS 13
SQUEEZE 14
VSEL2 15
VSEL1 16
+12 17
GND 18
GND 19
GND 20
J
CN491
SC_B 1-C3
SC_G 1-C3
SC_R 1-C3
SC_V 1-A4
SC_Y 1-B4
SC_C 1-B4
SQUEEZ
V SEL2
V SEL1
V+12V
R675 10k
R676 4.7k
C674 CH 1000p
R629 4.7
C676 1
D603 MA111
Q612 IMZ1A
R678 4.7k
D604 MA111
R677 10k
R679 4.7k
C675 1
R630 4.7
C641 10/16
R641 1M
Q610 2SC4081
R642 15k
R643 1M
IC604 TK15420M
R644 0
C623 10/16
C624 0.1
R645 0
R646 2.2KF
R647 1KF
C625 0.1
C626 10/16
R884 12
R883 12
R882 12
R881 12
IC607 NJM78M09FA
IN OUT
R854 0
C617 470/16
C618 0.1
D614 EP10QY03
R888 12
R887 12
R886 12
R885 12
IC606 NJM78M06FA
R853 0
C608 100/10
C607 0.1
D615 EP10QY03
C704 47/6.3 VCH1222
R893 12
R892 12
R891 12
IC609 NJM79M06FA
R864 0
C627 470/16
C628 0.1
D616 EP10QY03
C610 100/10
C609 0.1
R866 0
V-12V
V-6V

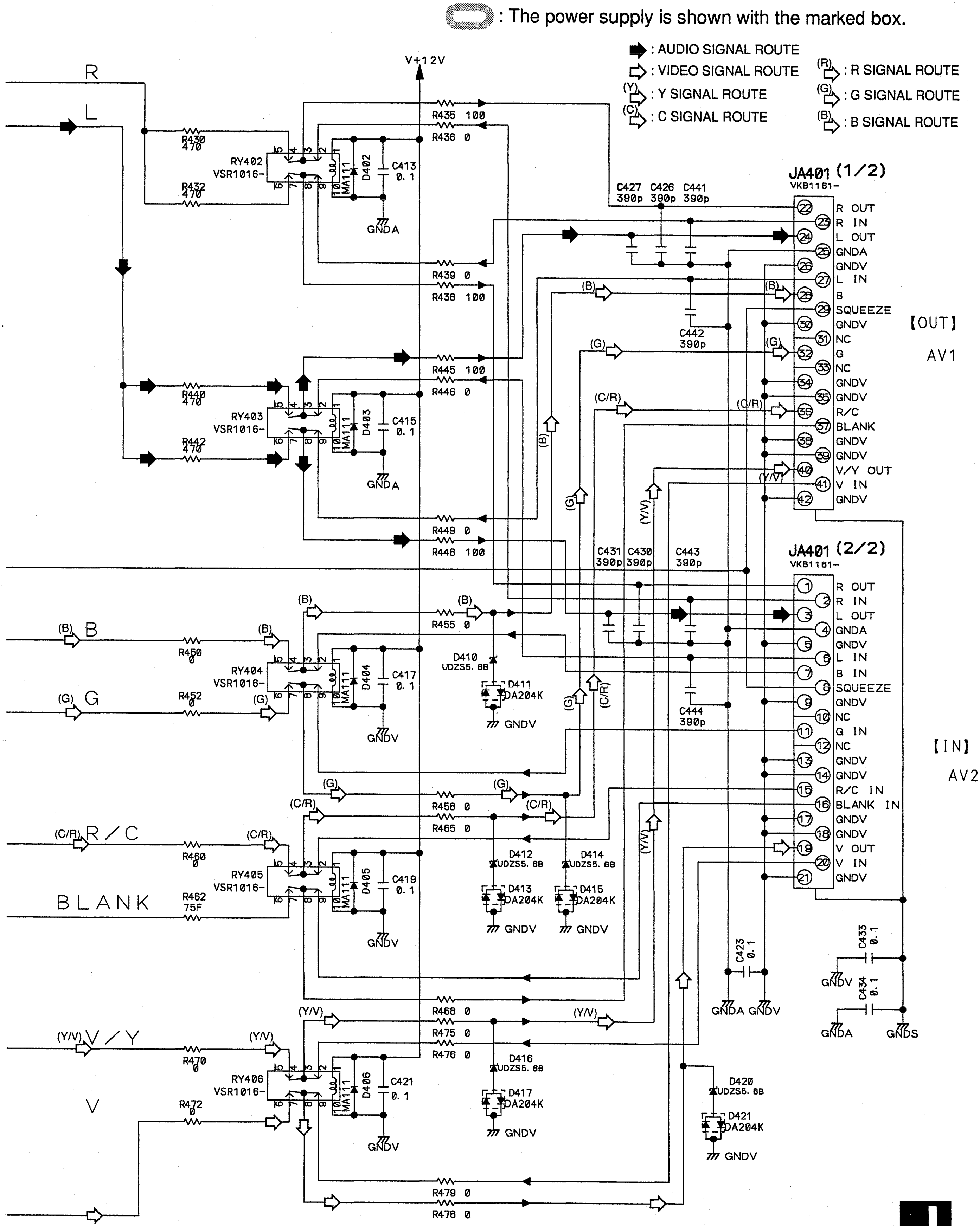
: The power supply is shown with the marked box.


I
VJKB ASSY
(KU/CA : VWV1853)
(LB, WL, WL/RD : VWV1852)
(WY : VWV1854)
A
B
C
D
IC602
TK15420M
1/2
2/2
IC601
TK15420M
IC604
TK15420M
R610 2.2kF
R611 2.2kF
R612 1kF
R614 1kF
R615 0
R616 68F
R617 470
R605 0
R607 0
R686 68F
R685 470
C613 10/16 VCH1221
C614 0.1
C615 0.1
C616 10/16 VCH1221
SC_V 1-C1
SC_Y 1-C1
WY ONLY
V+6V
V-6V
GND
C741 0.1
C742 10/16 VCH1221
R741 2.2K
R742 100
Q619 HN1C01F
Q618 2SA1037K
R746 100
C743 0.1
C744 10/16 VCH1221
R743 1K
R744 220
C751 0.1
R751 2.2K
R752 100
Q622 HN1C01F
R756 100
Q621 2SA1037K
C753 0.1
R753 1K
R754 220
C761 0.1
C762 10/16 VCH1221
R761 2.2K
R762 100
Q625 HN1C01F
R766 100
Q624 2SA1037K
C763 0.1
C764 10/16 VCH1221
R763 1K
R764 220
C771 0.1
R771 2.2K
R772 100
Q628 HN1C01F
R776 100
Q627 2SA1037K
C773 0.1
R773 1K
R774 220
L701 (R701) VTL1082
R702 68F
L704 (R704) VTL1082
R705 68F
L707 (R707) VTL1082
R708 68F
L710 (R710) VTL1082
R711 68F
L713 (R713) VTL1082
R714 68F
R715 680F
L716 (R716) VTL1082
R717 68F
R718 680F
L719 (R719) VTL1082
R720 75F
L722 (R722) VTL1082
R723 75F
L725 (R725) VTL1082
R726 75F
JA601 VKB1135-
CN602 AKP7023-
JA603 VKB1151-
PR
PB
Y
R668 10k
R669 10k
R696 10k
R695 10k
Q653 DTC143EK
R694 0
Q651 DTC143EK
Q652 DTA143EK
R693 0
KU/CA, LB, WL, WL/RD ONLY
R690 0
R691 0
R692 0
SC_R 1-C1
R749 75F
VSR1016- RY601
D611 MA111
C661 0.1
SC_B 1-C1
R748 75F
1-C1 SC_G
R747 75F
VSR1016- RY602
D612 MA111
C663 0.1
R697 0
R689 0
R688 470
LB, WL, WL/RD ONLY
C811 0.1
R811 2.2K
R812 100
Q631 HN1C01F
R816 100
Q630 2SA1037K
C813 0.1
R813 1K
R814 220
C821 0.1
C822 10/16
R821 2.2K
R822 100
Q634 HN1C01F
R826 100
Q633 2SA1037K
C823 0.1
C824 10/16
R823 1K
R824 220
L728 (R728) VTL1082
R729 68F
C815 47P CH
L731 (R731) VTL1082
R732 68F
C825 47P CH
L734 (R734) VTL1082
R735 75F
C835 47P CH
D618 UDZS5.6B
D619 UDZS5.6B
D620 UDZS5.6B
D621 DA204K
D622 DA204K
D623 DA204K
D624 UDZS5.6B
D625 DA204K
ASPECT
XI/P
JA604 AKP7137-
SW
NC
SWG
ASPECT
NC
I/P
GNDS
NC
GNDS
Cb
GNDS
Cr
GNDS
Y
D2 CONNECTOR
V+6V
R844 10KF
R843 10KF
IP_SW 1-C2
S601 VSH1020-
S25P
S25I
MENU SEL
C841 47p
R841 10KF
R842 10KF
R845 10KF
KN601 VNF1084
KN602 VNF1084
: VIDEO SIGNAL ROUTE
(Y) : Y SIGNAL ROUTE
(C) : C SIGNAL ROUTE
(Cr) : CR SIGNAL ROUTE
(Cb) : Cb SIGNAL ROUTE
(Y) : Y SIGNAL ROUTE
(R) : R SIGNAL ROUTE
(G) : G SIGNAL ROUTE
(B) : B SIGNAL ROUTE

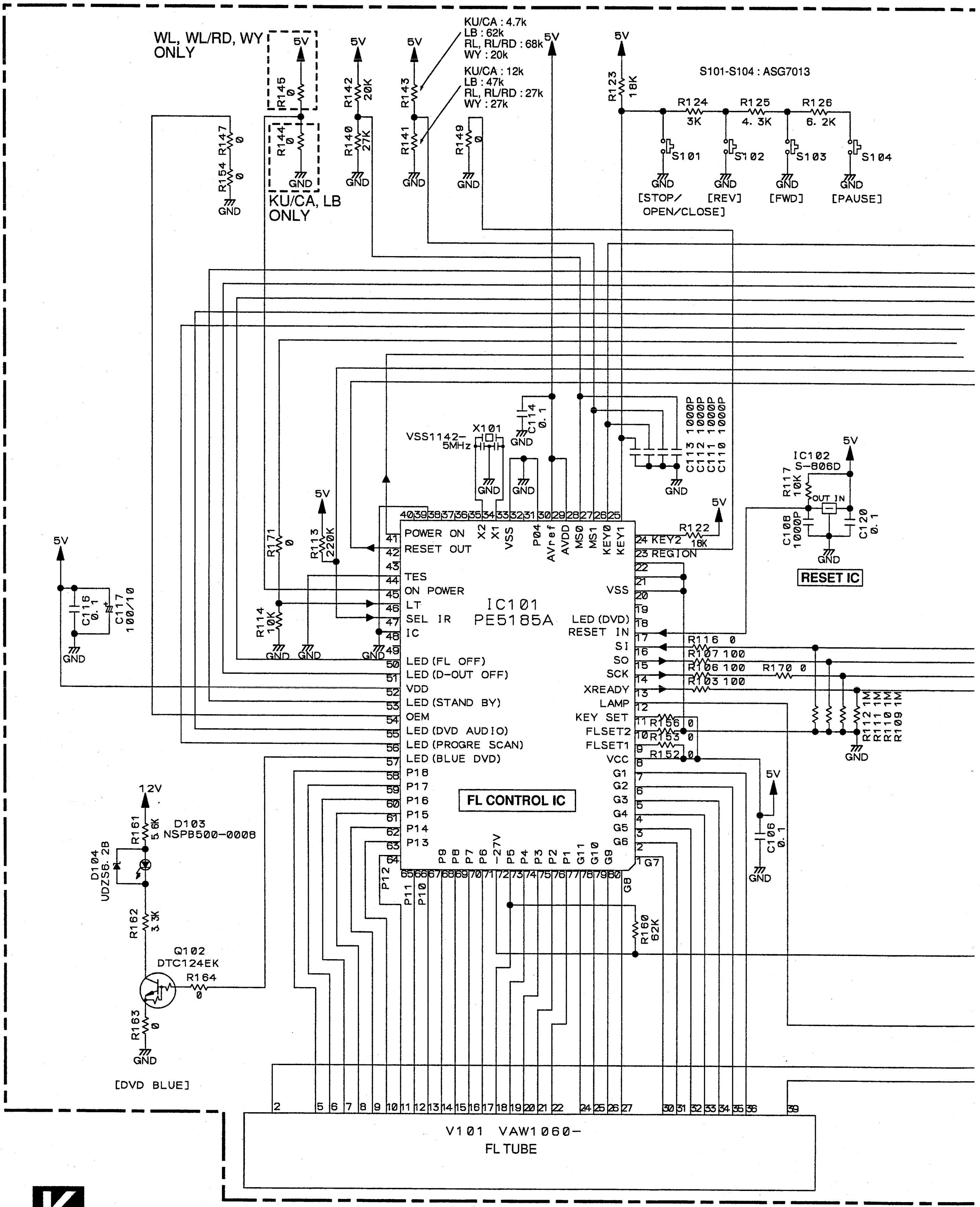
3.13 SCRB ASSY (DV-939A/WY ONLY)

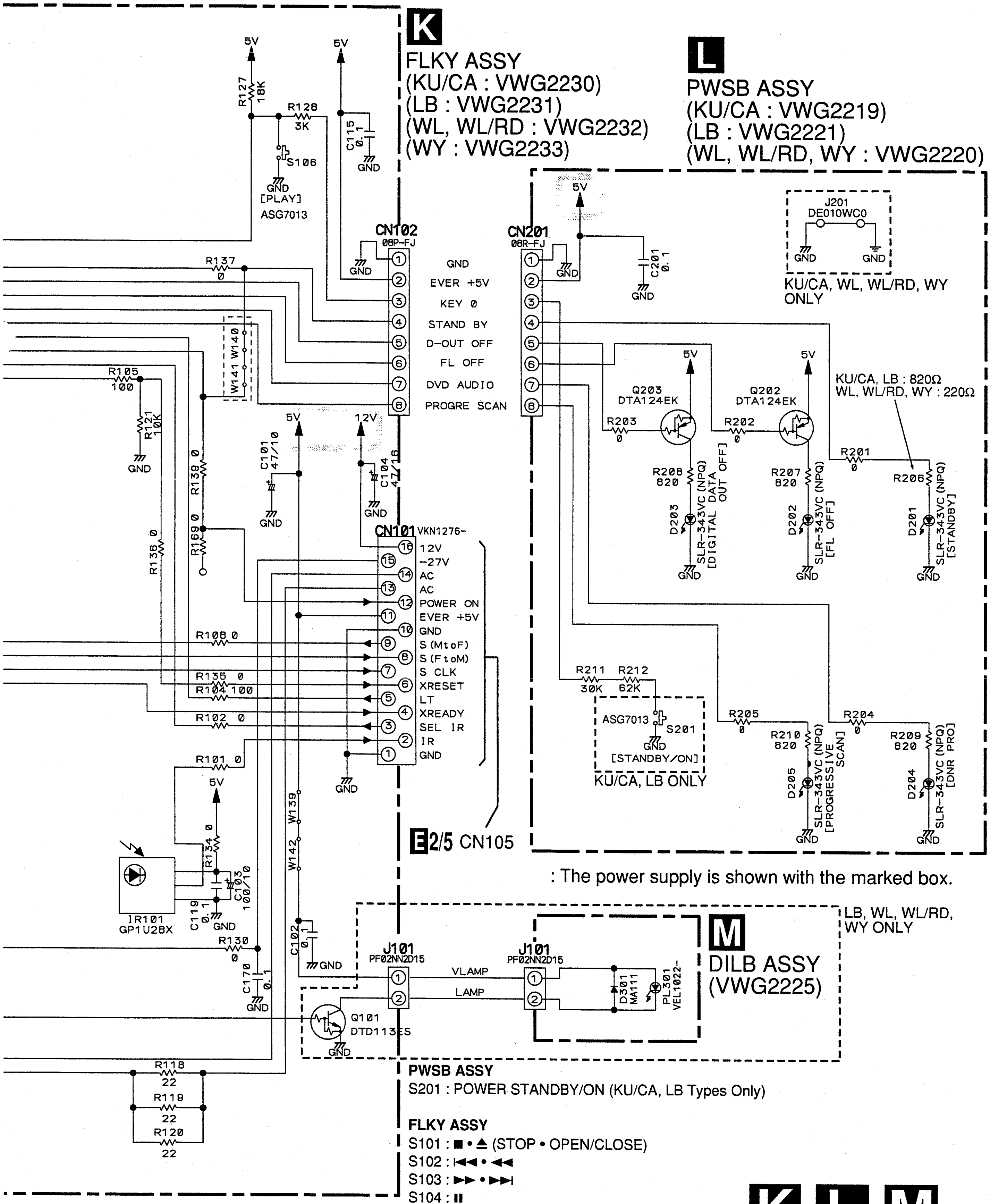

A
B
C
D
J SCRB ASSY (VWV1793)
CN402
B3B-PH-K-S
G
CN102
SCT R ①
SCT GND ②
SCT L ③
GNDA
V+12V
C407 0.1
GNDV
R401 4.3K
R402 3.3K
Q402 2SC2412K
Q403 2SA1037K
Q404 2SC2412K
R405 22K
R403 8.2K
R404 22K
R406 0
Q401 DTC124EK
V+12V
C405 0.1
CN491
VKN1251
I
CN692
GND ①
GND ②
GND ③
+12 ④
VSEL1 ⑤
VSEL2 ⑥
SQUEEZE ⑦
GNDS ⑧
C ⑨
GNDS ⑩
Y ⑪
GNDS ⑫
V ⑬
GNDS ⑭
R ⑮
GNDS ⑯
G ⑰
GNDS ⑱
B ⑲
GNDS ⑳
R481 1.3K
R482 1.3K
R483 1.3K
R409 6.2K
C408 0.1
R424 430
R411 360
R408 100
Q407 2SA1037K
R412 4.7K
2SC2412K Q405
R425 7.5K
R426 0
D409 MA111
R410 56K
C409 0.1
(C)
(Y)
(R)
(G)
(B)
(C/R)
V+12V
Q409 DTA124EK
Q408 DTC124EK
R413 0
C410 0.1
(Y/V)
Y/V
R414 0
R415 0
R418 0
R419 0
Y
V
RY401
VSR1016-
D401 MA111
C411 0.1
R420 0
R421 75F
R
C
C/R
R416 0
R417 0

: The power supply is shown with the marked box.


: AUDIO SIGNAL ROUTE
: VIDEO SIGNAL ROUTE
(Y) : Y SIGNAL ROUTE
(C) : C SIGNAL ROUTE
(R) : R SIGNAL ROUTE
(G) : G SIGNAL ROUTE
(B) : B SIGNAL ROUTE
V+12V
R
L
R430 470
R432 470
RY402 VSR1016-
D402 MA111
C413 0.1
GNDA
R435 100
R436 0
R439 0
R438 100
C427 390p
C426 390p
C441 390p
C442 390p
JA401 (1/2) VKB1161-
22 R OUT
23 R IN
24 L OUT
25 GNDA
26 GNDV
27 L IN
28 B
29 SQUEEZE
30 GNDV
31 NC
32 G
33 NC
34 GNDV
35 GNDV
36 R/C
37 BLANK
38 GNDV
39 GNDV
40 V/Y OUT
41 V IN
42 GNDV
[OUT]
AV1
R440 470
R442 470
RY403 VSR1016-
D403 MA111
C415 0.1
GNDA
R445 100
R446 0
R449 0
R448 100
C431 390p
C430 390p
C443 390p
C444 390p
JA401 (2/2) VKB1161-
1 R OUT
2 R IN
3 L OUT
4 GNDA
5 GNDV
6 L IN
7 B IN
8 SQUEEZE
9 GNDV
10 NC
11 G IN
12 NC
13 GNDV
14 GNDV
15 R/C IN
16 BLANK IN
17 GNDV
18 GNDV
19 V OUT
20 V IN
21 GNDV
[IN]
AV2
(B) B
R450 0
(G) G
R452 0
RY404 VSR1016-
D404 MA111
C417 0.1
GNDV
R455 0
D410 UDZS5.6B
D411 DA204K
GNDV
(C/R) R/C
R460 0
BLANK
R462 75F
RY405 VSR1016-
D405 MA111
C419 0.1
GNDV
R458 0
R465 0
D412 UDZS5.6B
D413 DA204K
D414 UDZS5.6B
D415 DA204K
GNDV
C423 0.1
GNDA GNDV
C433 0.1
C434 0.1
GNDV
GNDA
GNDS
(Y/V) V/Y
R470 0
V
R472 0
RY406 VSR1016-
D406 MA111
C421 0.1
GNDV
R468 0
R475 0
R476 0
D416 UDZS5.6B
D417 DA204K
GNDV
D420 UDZS5.6B
D421 DA204K
GNDV
R479 0
R478 0

3.14 FLKY, PWSB and DILB ASSYS


A
B
C
D
WL, WL/RD, WY ONLY
KU/CA, LB ONLY
5V
R145 0
R144 0
R147 0
R154 0
R142 20K
R140 27K
R143
R141
R149 0
KU/CA : 4.7k
LB : 62k
RL, RL/RD : 68k
WY : 20k
KU/CA : 12k
LB : 47k
RL, RL/RD : 27k
WY : 27k
R123 18K
S101-S104 : ASG7013
R124 3K
R125 4.3K
R126 6.2K
S101
S102
S103
S104
[STOP/ OPEN/CLOSE]
[REV]
[FWD]
[PAUSE]
GND
C114 0.1
X101
VSS1142-5MHz
C113 1000P
C112 1000P
C111 1000P
C110 1000P
IC102 S-806D
R117 10K
OUT IN
C108 1000P
C120 0.1
RESET IC
R171 0
R113 220K
R114 10K
C116 0.1
C117 100/10
IC101 PE5185A
FL CONTROL IC
POWER ON
RESET OUT
TES
ON POWER
LT
SEL IR
IC
LED (FL OFF)
LED (D-OUT OFF)
VDD
LED (STAND BY)
OEM
LED (DVD AUDIO)
LED (PROGRE SCAN)
LED (BLUE DVD)
P18
P17
P16
P15
P14
P13
X2
X1
VSS
P04
AVref
AVDD
MS0
MS1
KEY0
KEY1
KEY2
REGION
VSS
LED (DVD)
RESET IN
SI
SO
SCK
XREADY
LAMP
KEY SET
FLSET2
FLSET1
VCC
G1
G2
G3
G4
G5
G6
G7
G8
P12
P11
P10
P9
P8
P7
P6
-27V
P5
P4
P3
P2
P1
G11
G10
G9
R122 18K
R116 0
R107 100
R106 100
R170 0
R103 100
R112 1M
R110 1M
R109 1M
R156 0
R153 0
R152 0
C106 0.1
R160 62K
12V
R161 5.6K
D103 NSPB500-0008
D104 UDZS6.2B
R162 3.3K
Q102 DTC124EK
R164 0
R163 0
[DVD BLUE]
V101 VAW1060-
FL TUBE

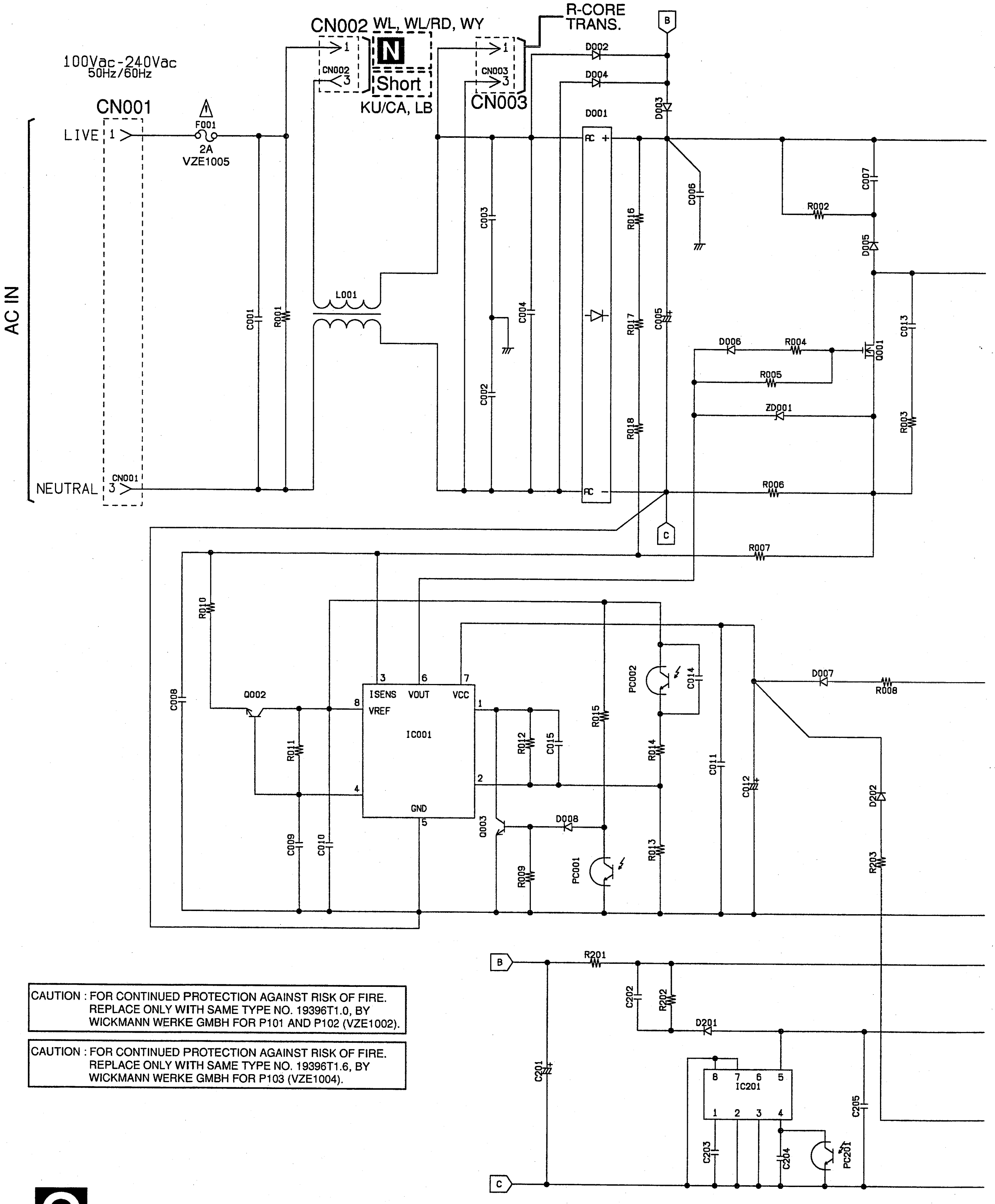

K
FLKY ASSY
(KU/CA : VWG2230)
(LB : VWG2231)
(WL, WL/RD : VWG2232)
(WY : VWG2233)
L
PWSB ASSY
(KU/CA : VWG2219)
(LB : VWG2221)
(WL, WL/RD, WY : VWG2220)
5V
R127 18K
R128 3K
C115 0.1
S106
GND
[PLAY]
ASG7013
CN102
08P-FJ
R137 0
W140
W141
R105 100
R121 10K
R139 0
R169 0
R136 0
GND
EVER +5V
KEY 0
STAND BY
D-OUT OFF
FL OFF
DVD AUDIO
PROGRE SCAN
CN201
08R-FJ
C201 0.1
J201
DE010WC0
KU/CA, WL, WL/RD, WY ONLY
Q203
DTA124EK
Q202
DTA124EK
KU/CA, LB : 820Ω
WL, WL/RD, WY : 220Ω
R203 0
R202 0
R201 0
R208 820
R207 820
R206
D203
D202
D201
SLR-343VC (NPQ)
[DIGITAL DATA OUT OFF]
[FL OFF]
[STANDBY]
12V
C101 47/10
C104 47/16
CN101 VKN1276-
12V
-27V
AC
AC
POWER ON
EVER +5V
GND
S (MtoF)
S (FtoM)
S CLK
XRESET
LT
XREADY
SEL IR
IR
GND
R108 0
R135 0
R104 100
R102 0
R101 0
R211 30K
R212 62K
ASG7013
S201
[STANDBY/ON]
KU/CA, LB ONLY
R205 0
R204 0
R210 820
R209 820
D205
D204
[PROGRESSIVE SCAN]
[DNR PRO]
E 2/5 CN105
W139
W142
R134 0
C103 100/10
C119 0.1
IR101
GP1U28X
R130 0
C170 0.1
C102 0.1
J101
PF02NN2D15
VLAMP
LAMP
Q101
DTD113ES
D301
MA111
PL301
VEL1022-
M
DILB ASSY
(VWG2225)
LB, WL, WL/RD, WY ONLY
R118 22
R119 22
R120 22

: The power supply is shown with the marked box.

PWSB ASSY
S201 : POWER STANDBY/ON (KU/CA, LB Types Only)

FLKY ASSY
S101 : ■ • ▲ (STOP • OPEN/CLOSE)
S102 : |◀◀ • ◀◀
S103 : ▶▶ • ▶▶|
S104 : ||
S106 : ▶

3.15 POWER SUPPLY UNIT


AC IN
100Vac-240Vac
50Hz/60Hz
CN001
LIVE 1
NEUTRAL 3
CN001
F001
2A
VZE1005
CN002 WL, WL/RD, WY
CN002
N
Short
KU/CA, LB
CN003
CN003
R-CORE TRANS.
L001
C001
R001
C002
C003
C004
C005
C006
C007
C008
C009
C010
C011
C012
C013
C014
C015
D001
D002
D003
D004
D005
D006
D007
D008
ZD001
R002
R003
R004
R005
R006
R007
R008
R009
R010
R011
R012
R013
R014
R015
R016
R017
R018
Q001
Q002
Q003
PC001
PC002
IC001
ISENS
VOUT
VCC
VREF
GND
B
C
R201
R202
R203
C201
C202
C203
C204
C205
D201
D202
IC201
PC201

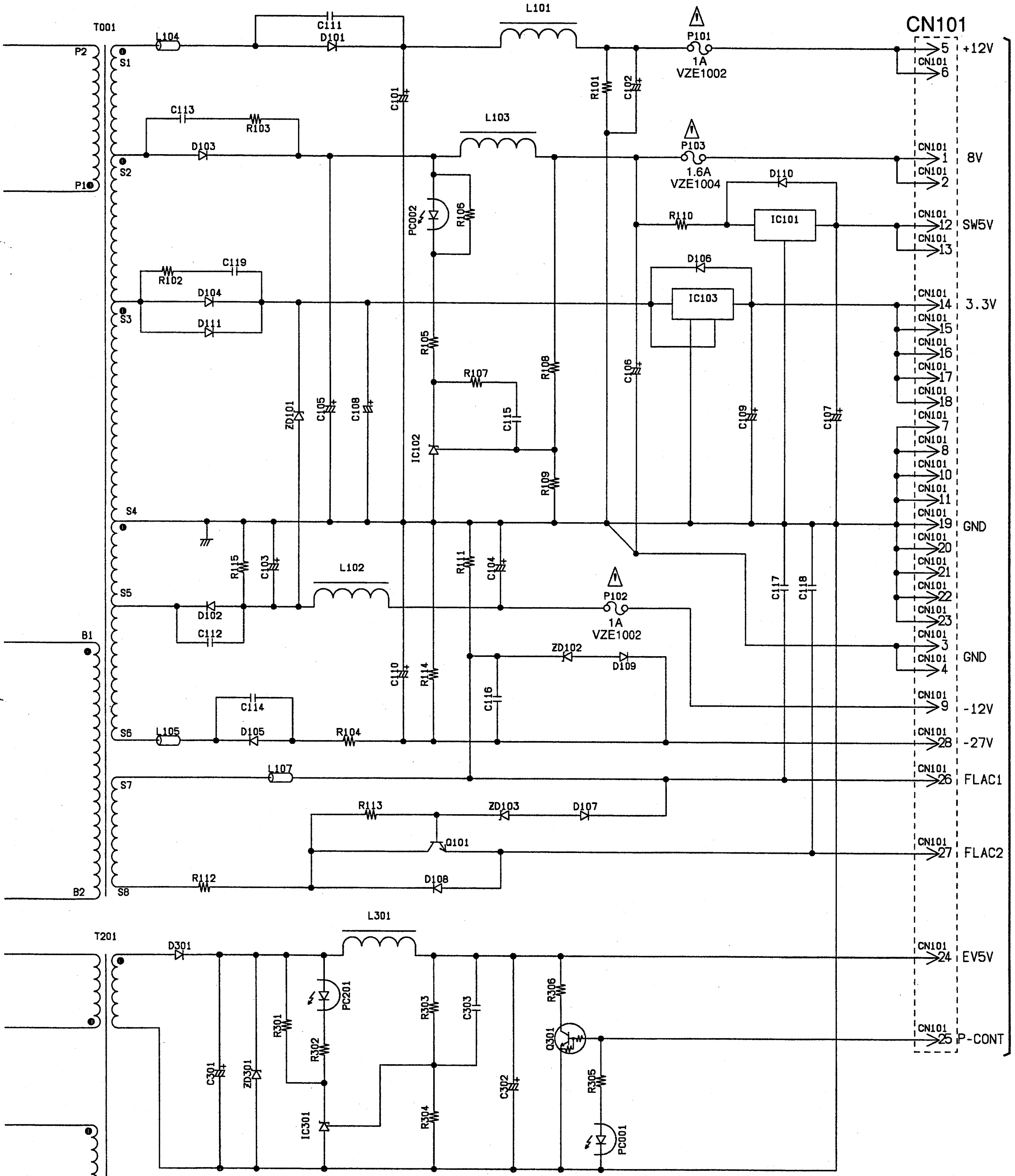
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 19396T1.0, BY WICKMANN WERKE GMBH FOR P101 AND P102 (VZE1002).

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 19396T1.6, BY WICKMANN WERKE GMBH FOR P103 (VZE1004).

O POWER SUPPLY UNIT (VWR1333)

《 NOTE OF SPARE PARTS IN POWER SUPPLY (SYPS) UNIT 》

- In case of repairing, use the described parts only to prevent an accident.
- Please write the red ✓ mark on the board when the primary section of POWER SUPPLY (SYPS) Unit is repaired.
- Please take care to keep the space, not touching other parts when replacing the parts.


T001
P2
P1
S1
S2
S3
S4
S5
S6
S7
S8
B1
B2
L104
C111
D101
L101
P101
1A
VZE1002
C101
R101
C102
C113
R103
D103
L103
P103
1.6A
VZE1004
D110
PC002
R106
R110
IC101
R102
C119
D104
D111
D106
IC103
R105
R107
R108
C106
ZD101
C105
C108
C115
IC102
C109
C107
R109
R115
C103
L102
R111
C104
P102
1A
VZE1002
C117
C118
D102
C112
ZD102
D109
C110
R114
C116
C114
L105
D105
R104
L107
R113
ZD103
D107
Q101
R112
D108
T201
D301
L301
PC201
R303
C303
R306
R301
R302
Q301
C301
ZD301
C302
R305
IC301
R304
PC001
CN101
CN101 5 +12V
CN101 6
CN101 1 8V
CN101 2
CN101 12 SW5V
CN101 13
CN101 14 3.3V
CN101 15
CN101 16
CN101 17
CN101 18
CN101 7
CN101 8
CN101 10
CN101 11
CN101 19 GND
CN101 20
CN101 21
CN101 22
CN101 23
CN101 3 GND
CN101 4
CN101 9 -12V
CN101 28 -27V
CN101 26 FLAC1
CN101 27 FLAC2
CN101 24 EV5V
CN101 25 P-CONT
E 1/5
CN101

- NOTE FOR FUSE REPLACEMENT

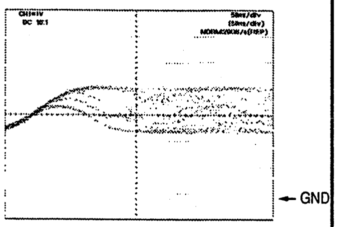
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE WITH SAME TYPE AND RATINGS OF FUSE.

■ WAVEFORMS

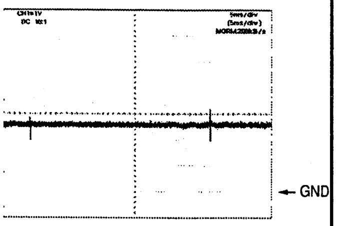
Note : The encircled numbers denote measuring point in the schematic diagram.

● DVDM ASSY

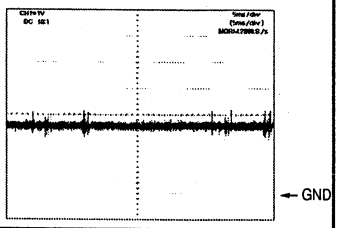
① **TP3 (RFO)**
V: 1V/div. H: 50nsec/div.
(at DVD PLAY)



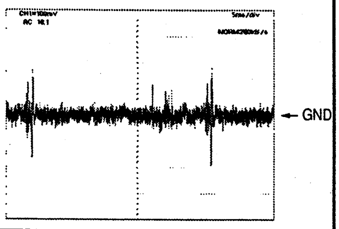
② **TP6 (TE)**
V: 1V/div. H: 5msec/div.
(at DVD PLAY)



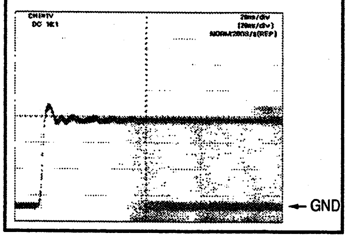
③ **TP8 (FDO)**
V: 1V/div. H: 5msec/div.
(at DVD PLAY)



④ **TP1 (FE)**
V: 100mV/div. H: 5msec/div.
(at DVD PLAY)



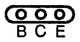
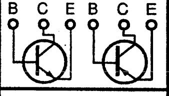
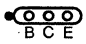
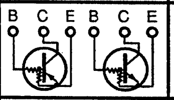
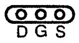
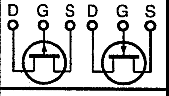
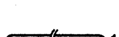
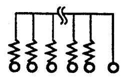
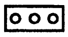
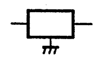
⑤ **IC201 - pin 1 (EFMOUT)**
V: 1V/div. H: 5msec/div.
(at DVD PLAY)



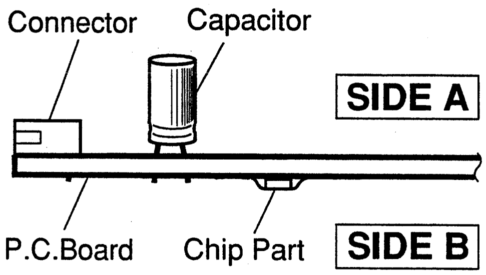
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

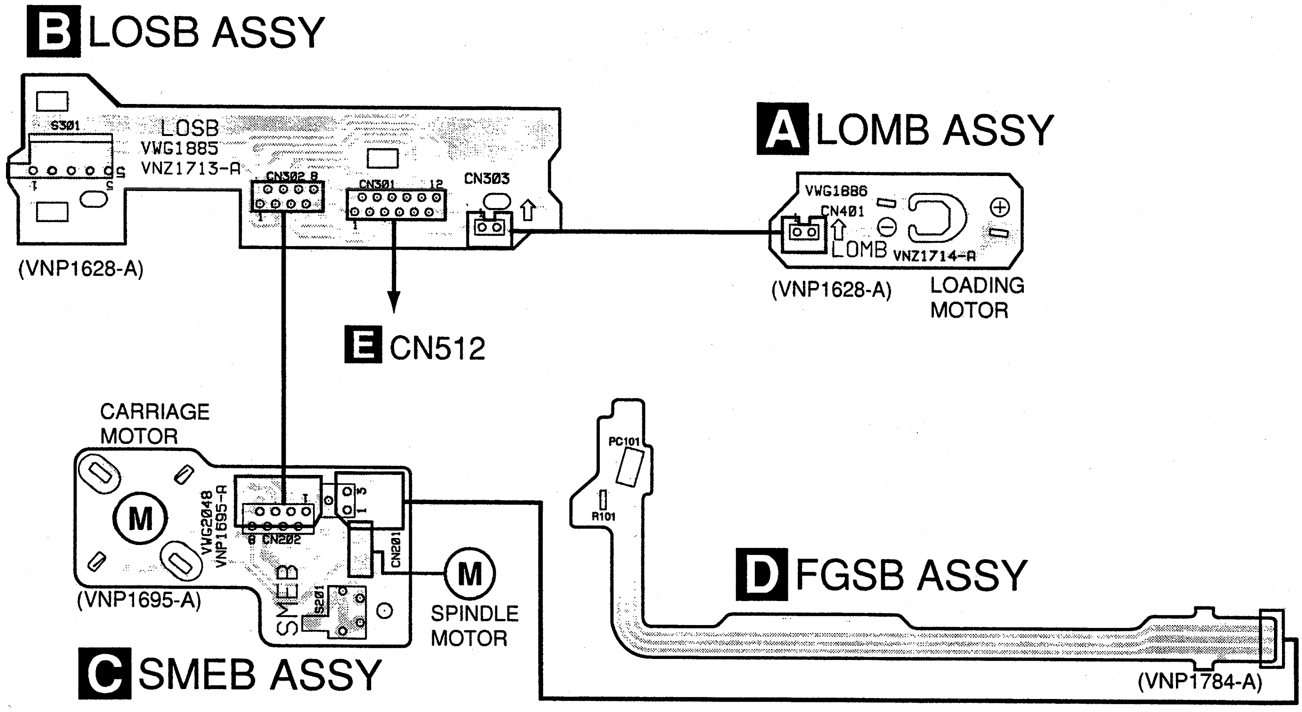
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.


Connector
Capacitor
SIDE A
P.C.Board
Chip Part
SIDE B

4.1 LOMB, LOSB, SMEB and FGSB ASSYS


B LOSB ASSY
S301
LOSB
VWG1885
VNZ1713-A
CN302
CN301
CN303
(VNP1628-A)
A LOMB ASSY
VWG1886
CN401
LOMB VNZ1714-A
(VNP1628-A)
LOADING MOTOR
E CN512
CARRIAGE MOTOR
M
VWG2048
VNP1695-A
CN202
CN201
SMEB
S201
(VNP1695-A)
M
SPINDLE MOTOR
C SMEB ASSY
PC101
R101
D FGSB ASSY
(VNP1784-A)

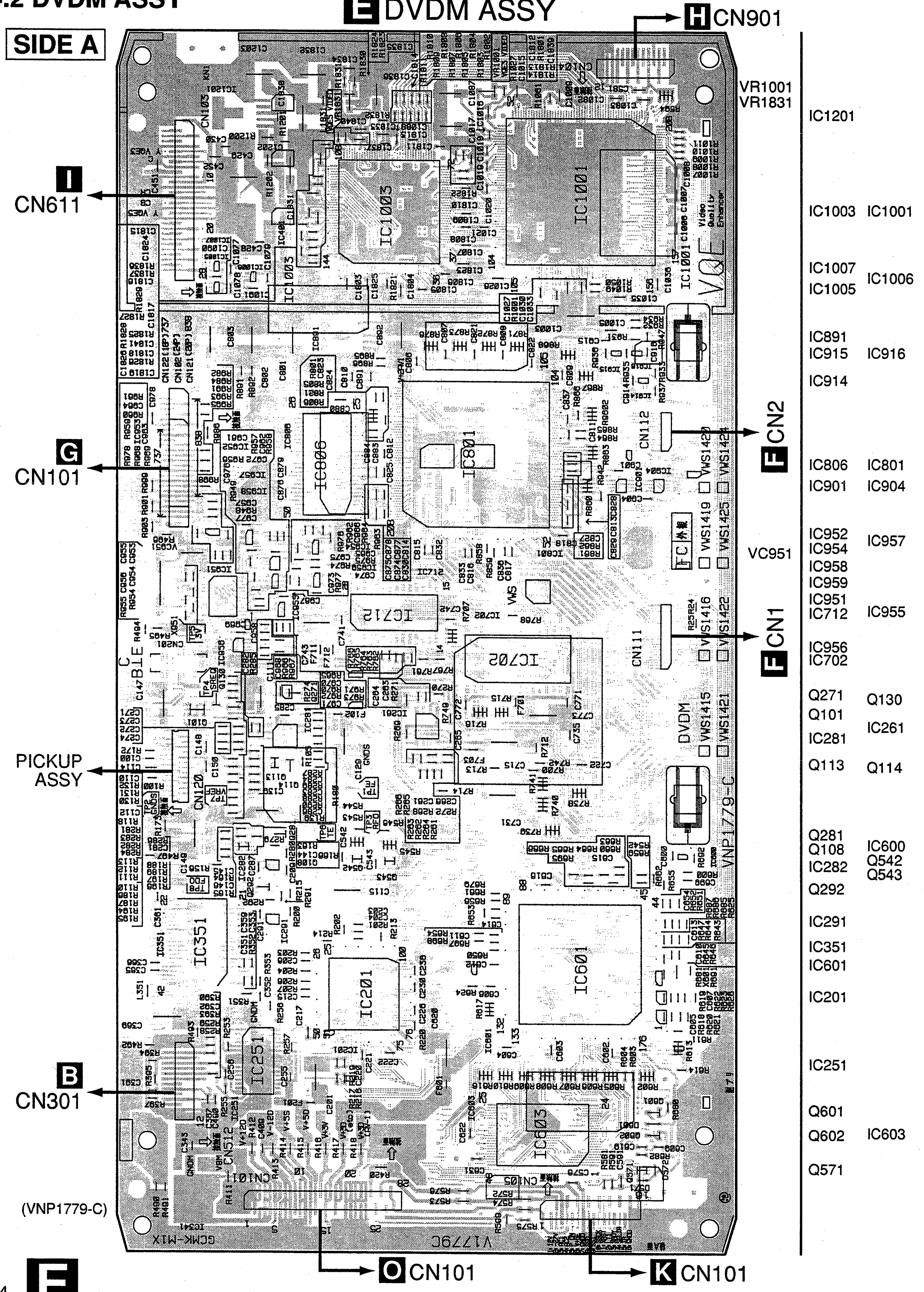
SIDE A

• This PCB is a four-layered board.

4.2 DVDM ASSY

SIDE A

E DVDM ASSY

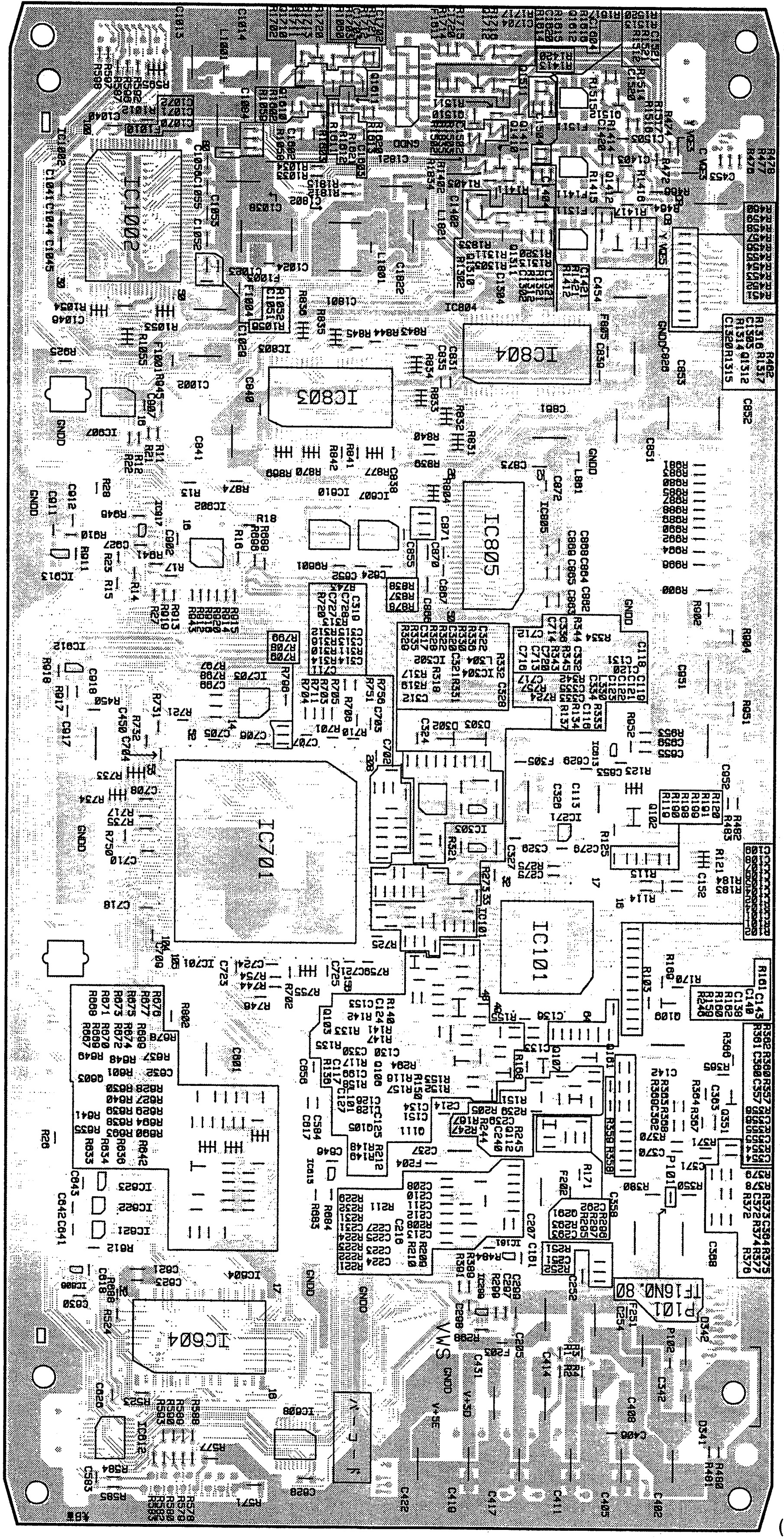

H CN901
VR1001
VR1831
I CN611
G CN101
PICKUP ASSY
B CN301
F CN2
F CN1
VC951
O CN101
K CN101
(VNP1779-C)
A
B
C
D
IC1201
IC1003 IC1001
IC1007
IC1005 IC1006
IC891
IC915 IC916
IC914
IC806 IC801
IC901 IC904
IC952
IC954 IC957
IC958
IC959
IC951
IC712 IC955
IC956
IC702
Q271 Q130
Q101
IC281 IC261
Q113 Q114
Q281
Q108 IC600
IC282 Q542
Q543
Q292
IC291
IC351
IC601
IC201
IC251
Q601
Q602 IC603
Q571

• This PCB is a four-layered board.

E DVDM ASSY

SIDE B

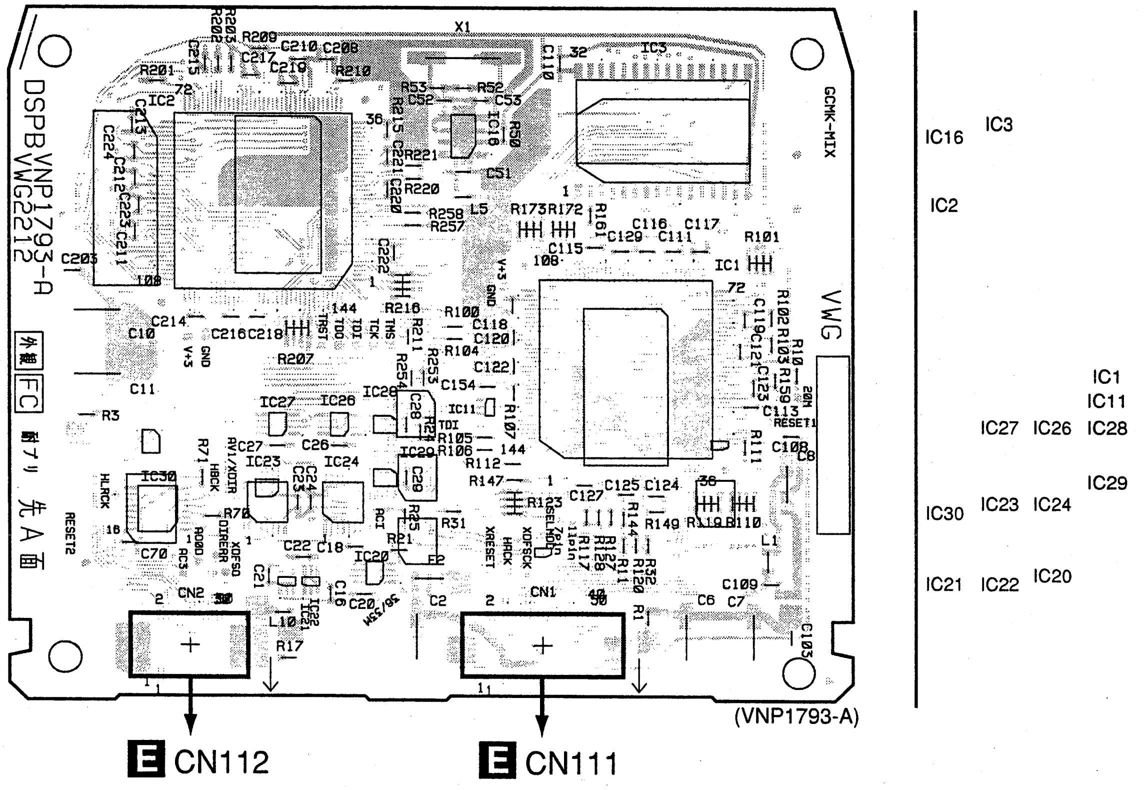
Q1620 Q1621 Q1712
Q1612
Q1610 Q1611 Q1511 Q1512
Q1510
Q1410 Q1411
Q1412
IC1002 Q1310 Q1311
Q1312
IC804
IC907 IC803
IC917 IC610 IC607 IC805
IC913 IC902
IC912
IC703
IC613
IC304 Q102
IC701 IC303 IC271
IC101
Q103
Q106 Q109
Q105 Q107 Q161
Q111
Q112 Q351
Q291
IC623 IC615
IC622
IC621
IC161
IC606
IC299
IC604
IC612 IC608


A
B
C
D
IC1002
IC803
IC804
IC805
IC701
IC101
IC604
P101

(VNP1779-C)

4.3 DSPB ASSY

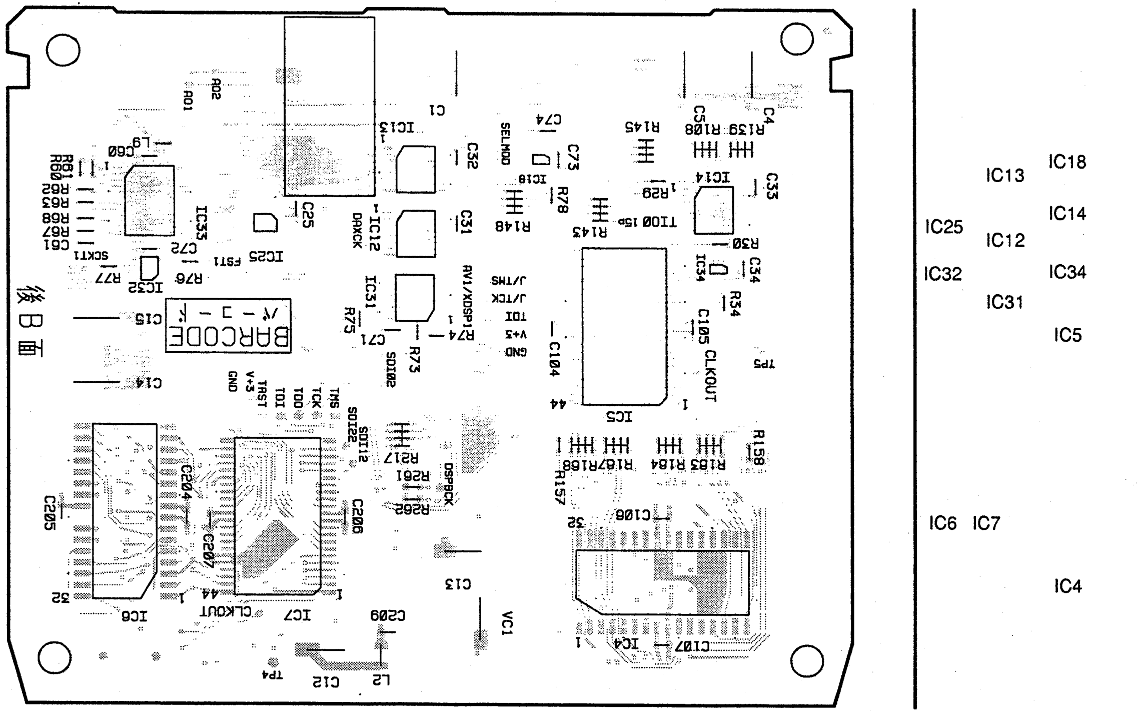
F DSPB ASSY


DSPB VNP1793-A
VWG2212
GCMK-MIX
VWG
X1
CN2
CN1
IC16
IC3
IC2
IC1
IC11
IC27
IC26
IC28
IC29
IC30
IC23
IC24
IC21
IC22
IC20
E CN112
E CN111

SIDE A

(VNP1793-A)

F DSPB ASSY

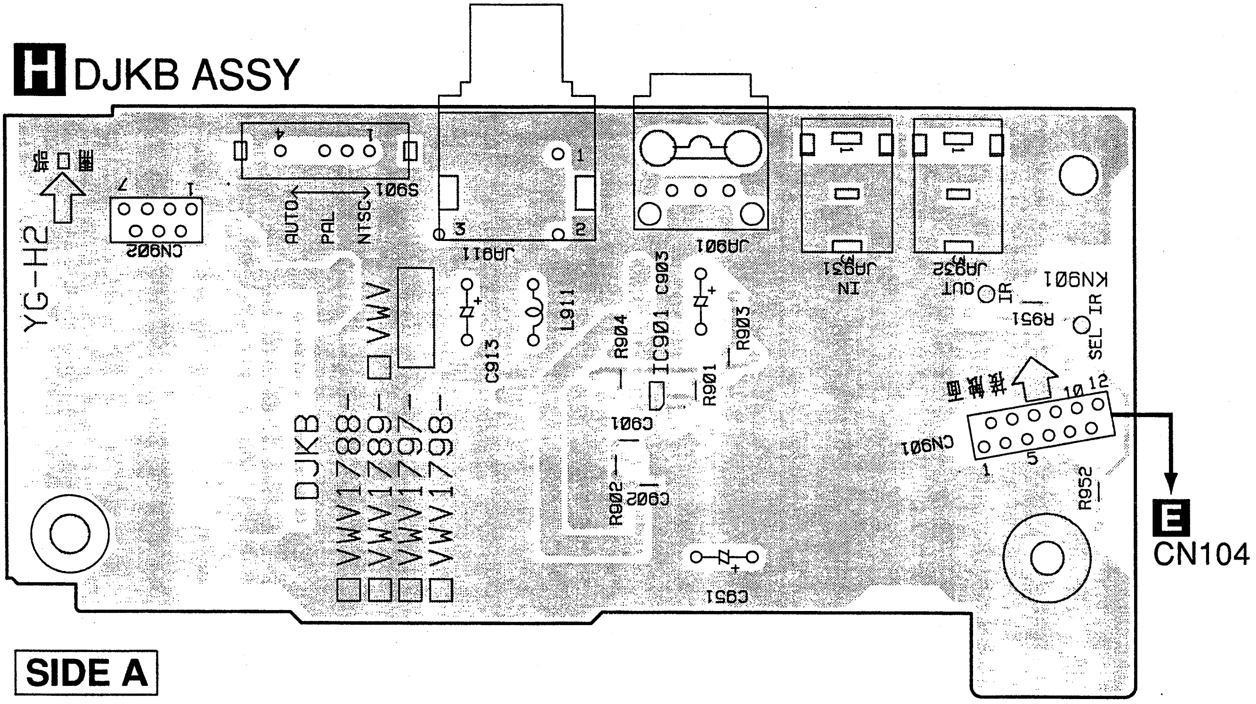

後B面
BARCODE
IC13
IC18
IC14
IC25
IC12
IC32
IC34
IC31
IC5
IC6
IC7
IC4

SIDE B

(VNP1793-A)

4.4 DJKB ASSY

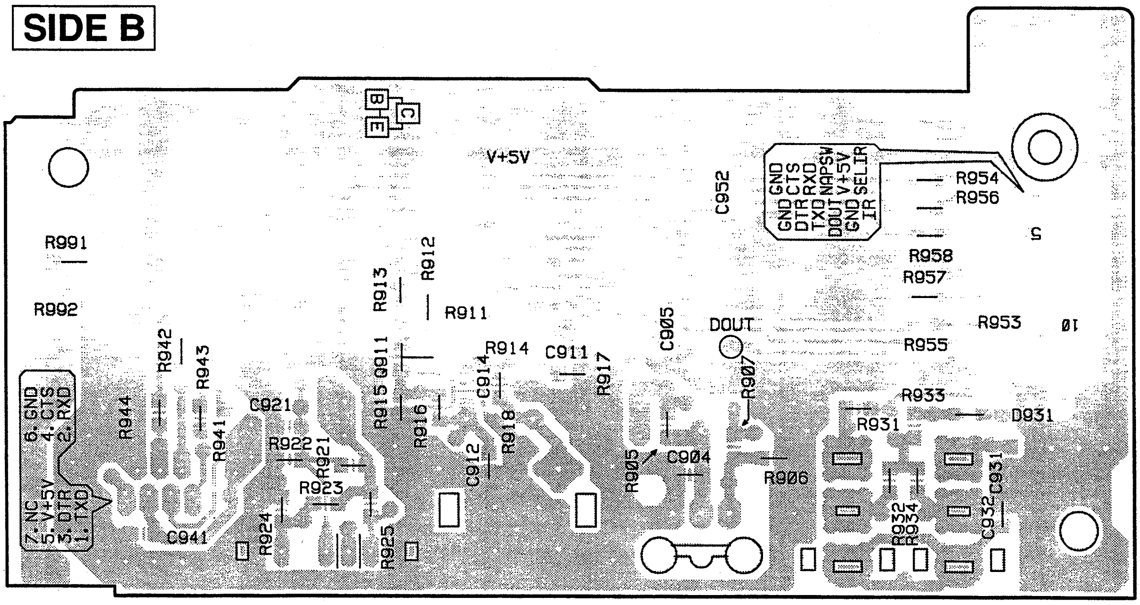
H DJKB ASSY


YG-H2
CN902
S901
AUTO
PAL
NTSC
JA911
JA901
JA931
IN
JA932
OUT
KN901
IR
SEL
R951
CN901
R952
L911
C913
R904
IC901
C903
R903
R901
C901
R902
C902
C951
DJKB
VWV1788-
VWV1789-
VWV1797-
VWV1798-
VWV
E
CN104

SIDE A

(VNP1781-C)

SIDE B


B
C
E
V+5V
C952
GND
CTS
DTR
RXD
TXD
NAPSW
DOUT
V+5V
GND
SEL
IR
R954
R956
R958
R957
R953
R955
R933
R931
D931
C931
C932
R932
R934
R906
C904
R905
R907
DOUT
C905
R917
C911
R914
C914
R918
C912
R916
R915
Q911
R913
R912
R911
C921
R922
R921
R923
R924
R925
C941
R944
R942
R943
R941
R991
R992
7. NC
5. V+5V
3. DTR
1. TXD
6. GND
4. CTS
2. RXD

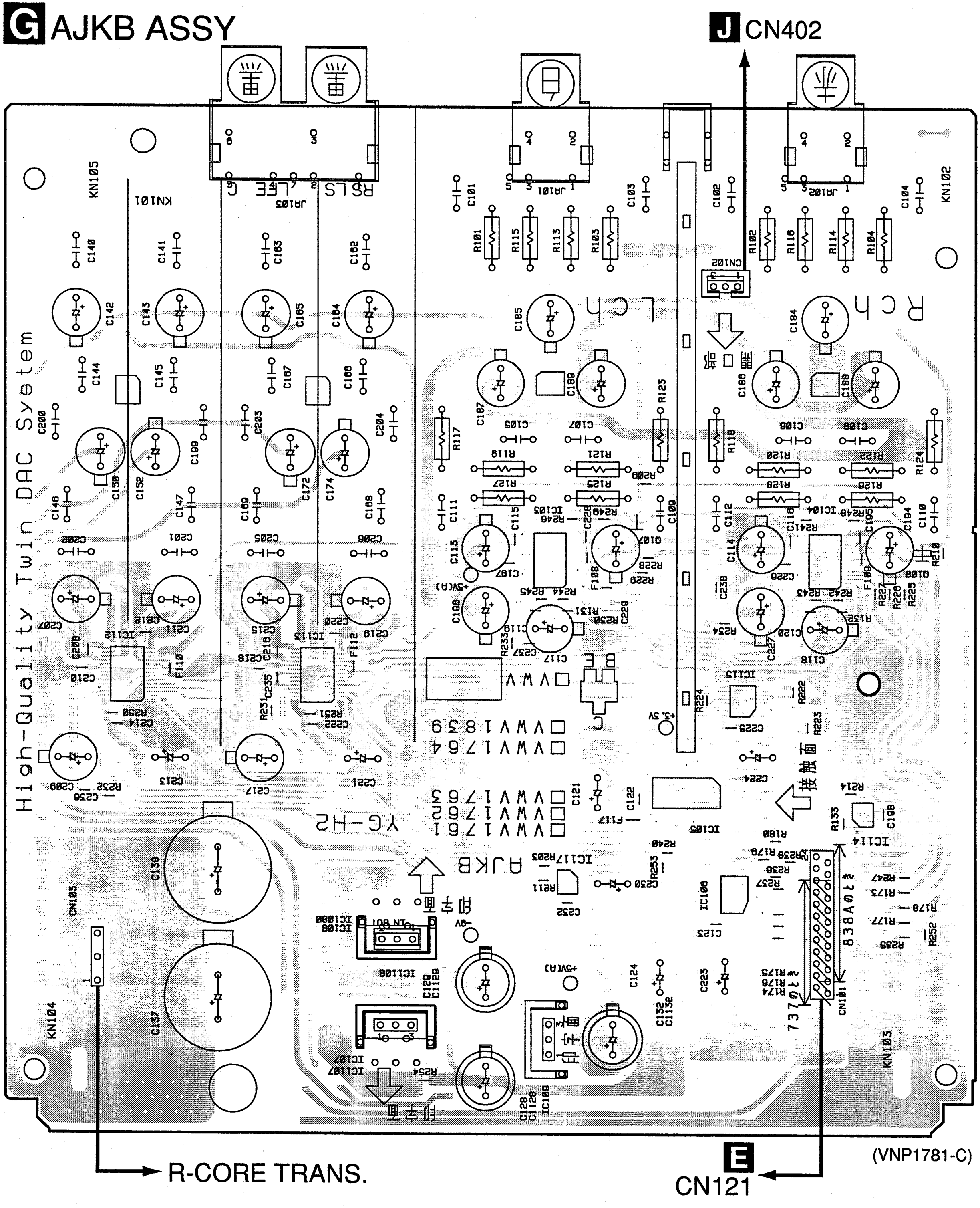
H DJKB ASSY

4.5 AJKB ASSY

A

SIDE A

G AJKB ASSY


J CN402
KN105
KN101
JA103
RSLS
LFE C
JA101
JA102
KN102
CN102
L c h
R c h
High-Quality Twin DAC System
YG-H2
AJKB
VWV1839
VWV1764
VWV1763
VWV1762
VWV1761
C130
C137
CN103
KN104
KN103
CN101
838A
737
IC108
IC1080
IC107
IC1107
IC103
IC105
IC106
IC112
IC113
IC114
IC115
IC117
+5V(A)
-8V
(VNP1781-C)
R-CORE TRANS.
E
CN121

B

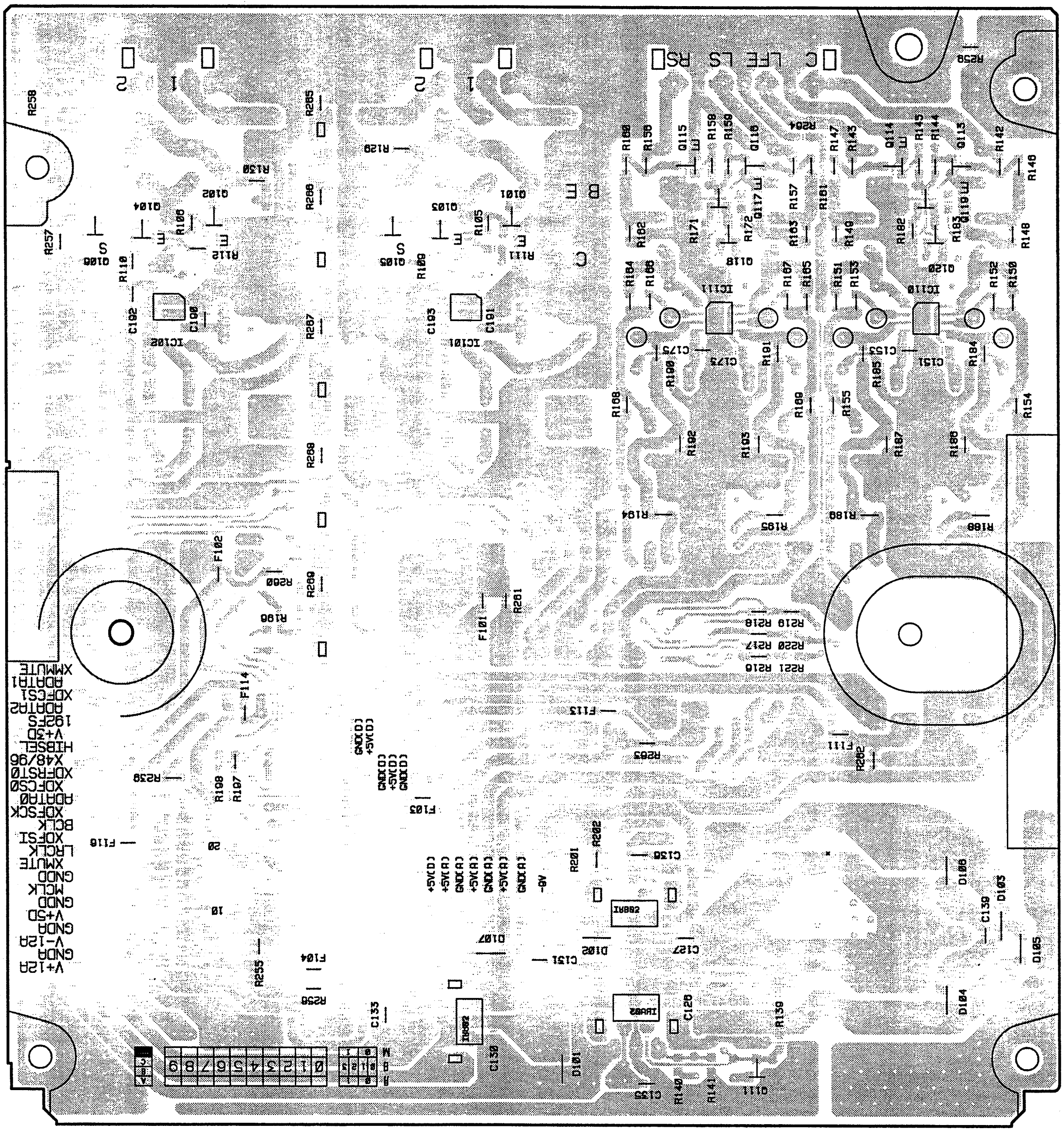
C

D

IC112 IC113 IC108 IC1080 IC107 IC1107 IC103 IC117 IC109 IC115 IC105 IC106 IC104 IC114

SIDE B

G AJKB ASSY



(VNP1781-C)

Q106 Q104 Q102
IC102

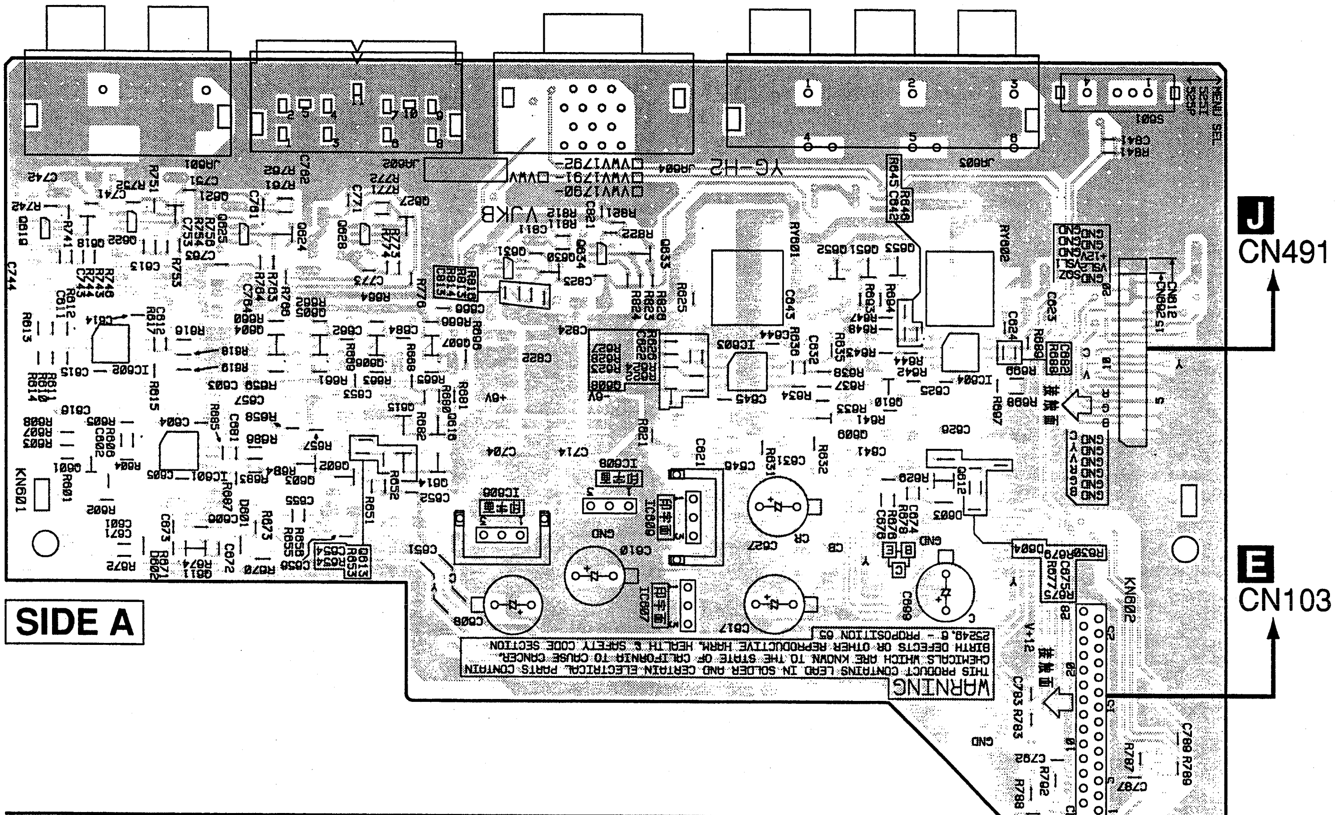
Q105 Q103 Q101
IC101

Q115 Q116
Q117 IC103
Q118
IC111
Q111

Q114 Q113
Q119
Q120
IC110

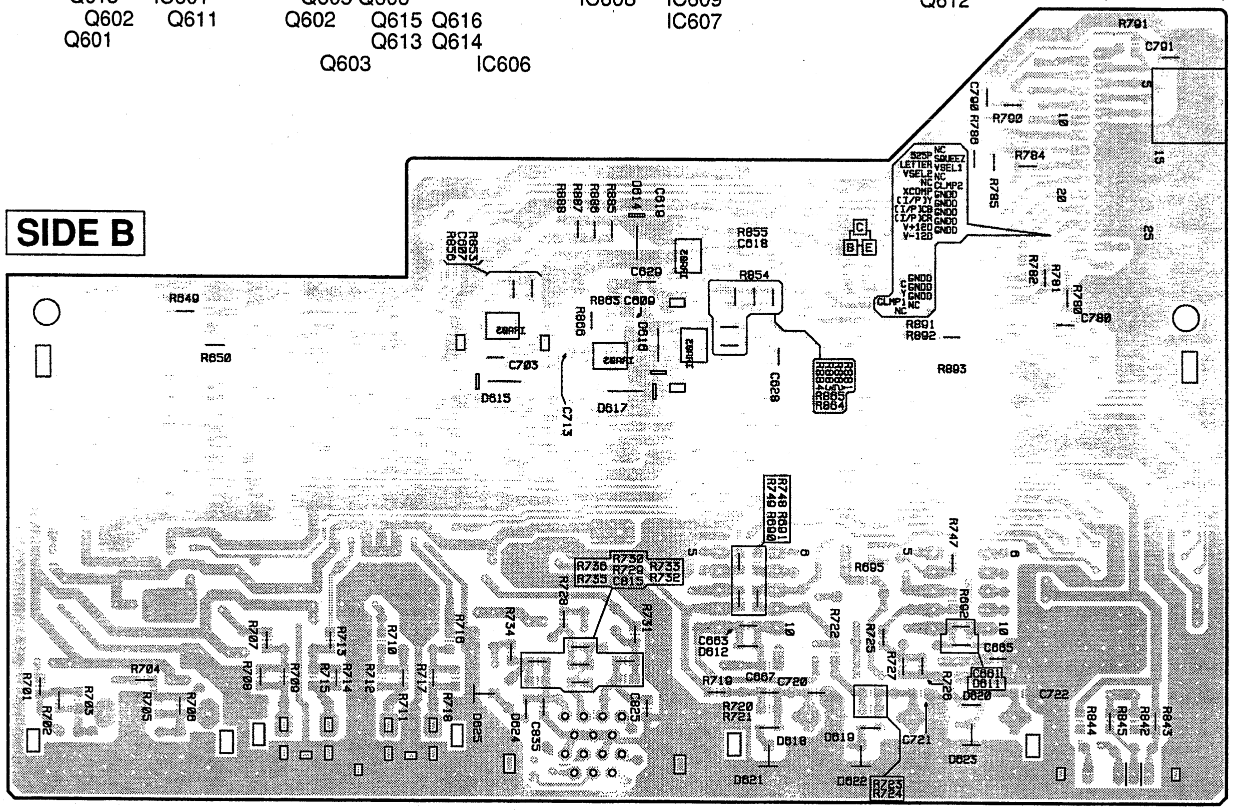
4.6 VJKB ASSY

I VJKB ASSY


A
B
J CN491
E CN103
SIDE A
KN601
KN602
CN611
RY601
RY602
IC601
IC602
IC603
IC604
IC606
IC607
IC608
IC609
WARNING

Q619 Q621 Q625 Q624 Q627 Q631 Q634 Q633 Q652 Q651 Q653
Q622 Q604 Q628 Q607 Q630 Q608 IC603 Q609 Q610 IC604
Q618 IC601 Q605 Q606 IC608 IC609 Q612
Q602 Q611 Q602 Q615 Q616 IC607
Q601 Q613 Q614
Q603 IC606

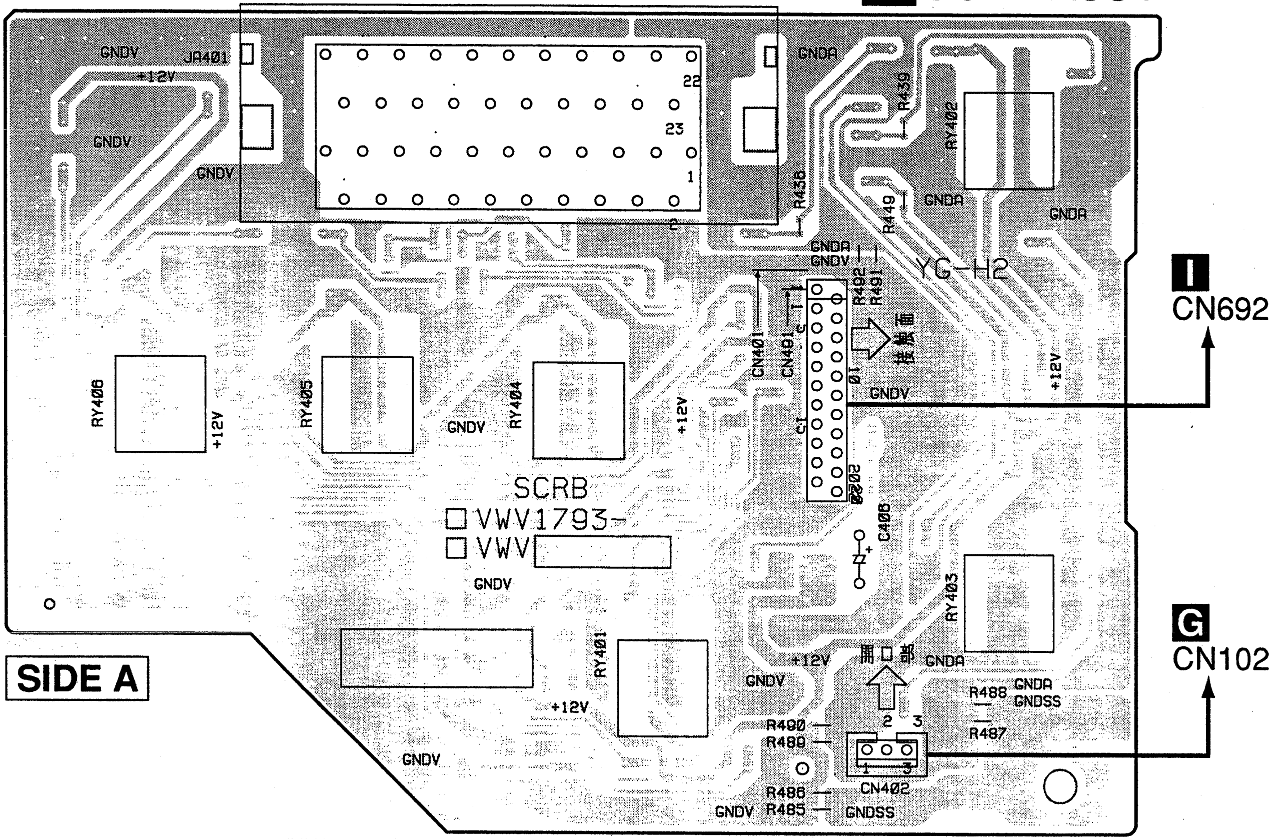
(VNP1781-C)


C
D
SIDE B
R701
R702
R703
R704
R705
R707
R708
R709
R710
R711
R712
R713
R714
R715
R717
R718
R719
R720
R721
R722
R725
R727
R728
R729
R730
R731
R732
R733
R734
R735
R747
R849
R850
R854
R855
R865
R866
R884
R885
R886
R887
R888
R891
R892
R893
C703
C713
C720
C721
C722
C780
C815
C818
C828
C835
C863
C865
C867
D612
D615
D617
D618
D619
D620
D621
D622
D623
D624
D625

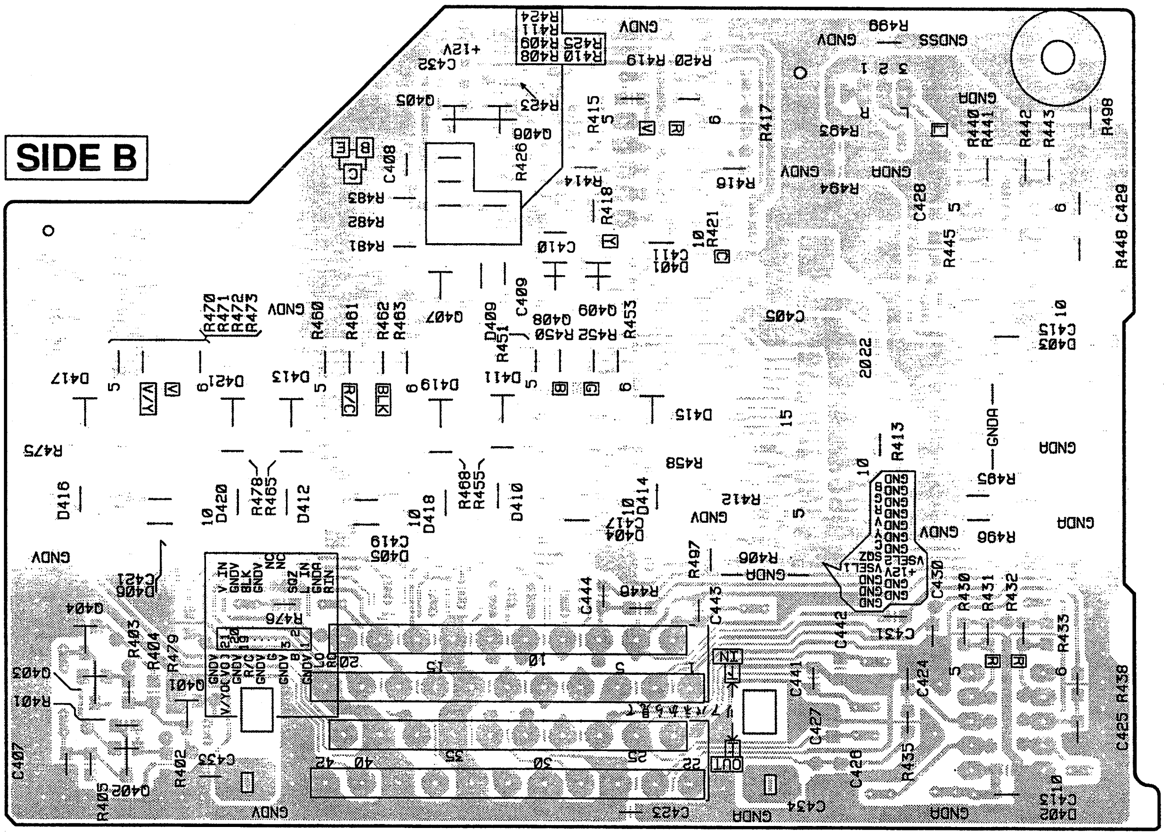
I VJKB ASSY

4.7 SCRB ASSY (For WY Type)

J SCRB ASSY


SIDE A
JA401
GNDV
+12V
22
23
1
2
GNDA
R439
RY402
R438
R449
YG-H2
R492
R491
CN401
I CN692
RY406
RY405
RY404
SCRB
VWV1793-
VWV
C400
RY403
G CN102
RY401
R488
GNDSS
R490
R489
R487
CN402
R486
R485

(VNP1781-C)

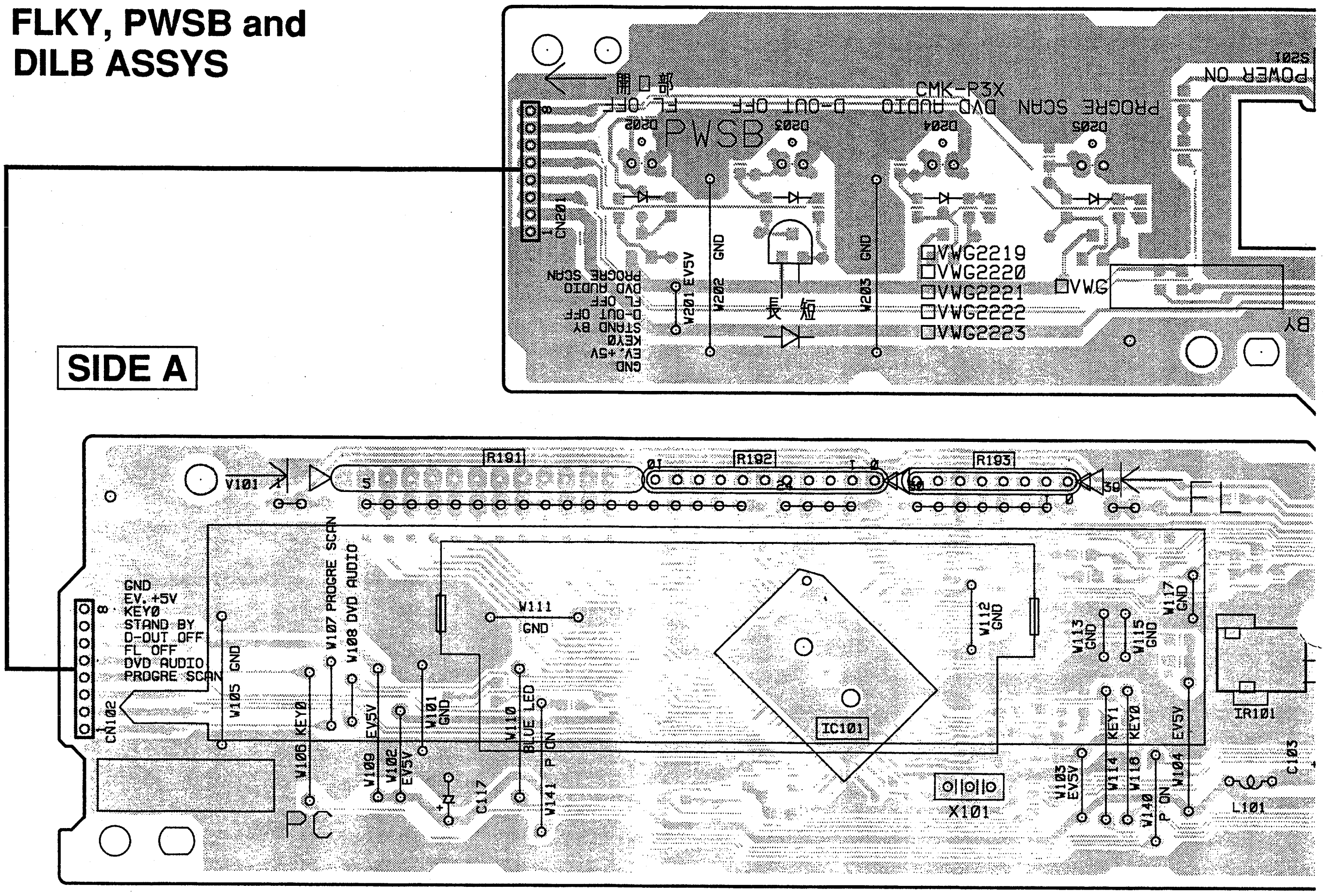

SIDE B
C432
+12V
R410 R408
R425 R409
R411
R424
R420 R419
R499
GNDSS
GNDV
GNDA
Q405
R423
Q406
R415
R417
R426
C408
R493
R440
R441
R442
R443
R498
R483
R482
R481
R414
R418
R416
R494
C428
R448 C429
C410
C411
R421
D401
R445
Q407
Q408
Q409
R450
R452
R453
D409
C409
R451
D417
D421
D413
D419
D411
D415
R470
R471
R472
R473
R460
R461
R462
R463
C405
C415
D403
V/A
R/C
BLK
R475
R478
R465
R468
R455
R458
R413
D416
D420
D412
D418
D410
D414
C417
D404
R412
R495
R496
GNDV
C421
D406
C419
D405
R497
R406
R446
C444
C443
C430
R430
R431
R432
R433
Q404
R403
R404
R479
R476
C442
C431
Q403
R401
Q401
IN
OUT
C441
C424
R436
C427
C425
C407
R402
C436
C426
R435
C413
D402
R405
Q402
C423
C434
GNDA

Q404 Q401 Q405 Q406 Q409
Q403 Q407 Q408
Q402

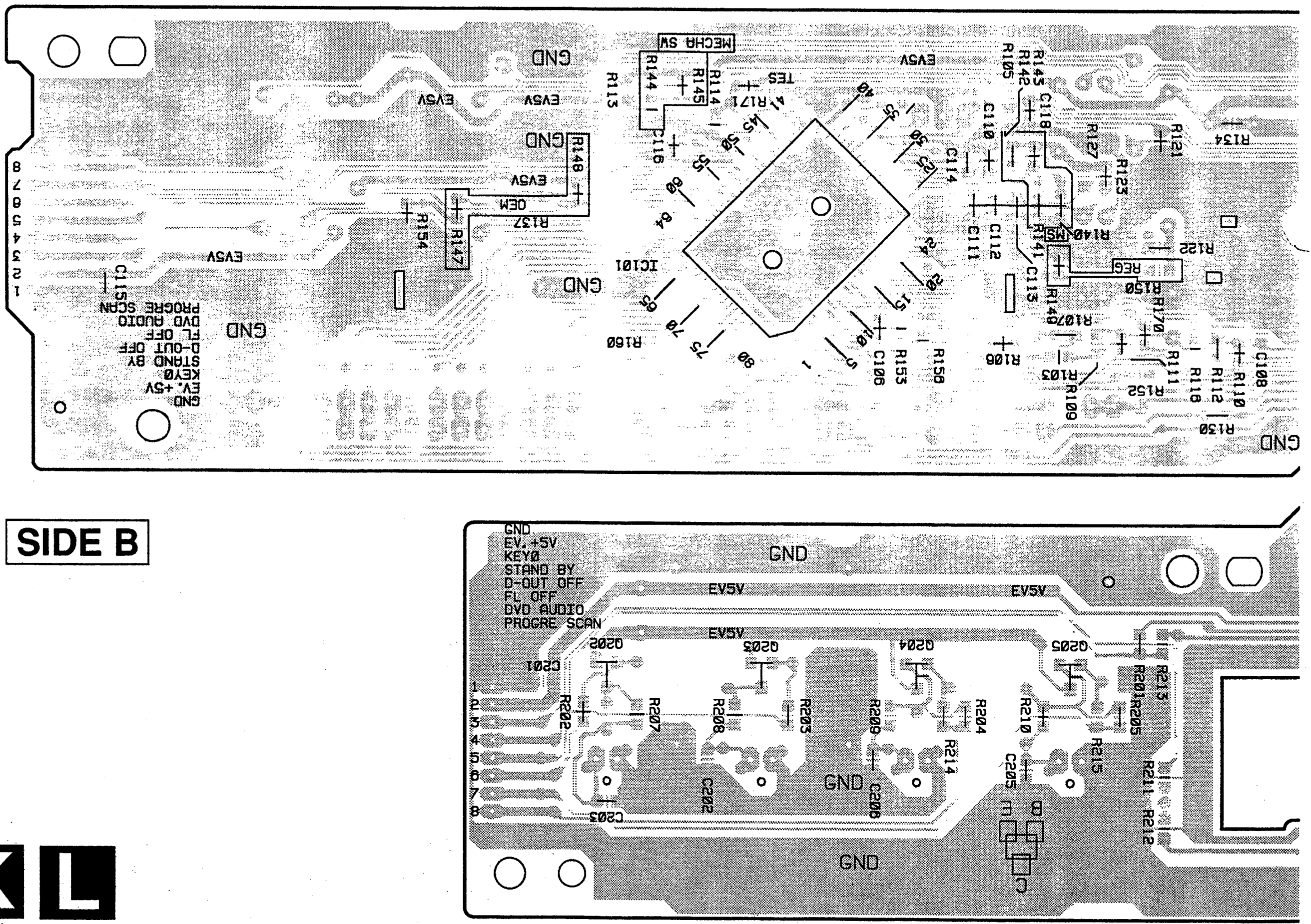
J SCRB ASSY

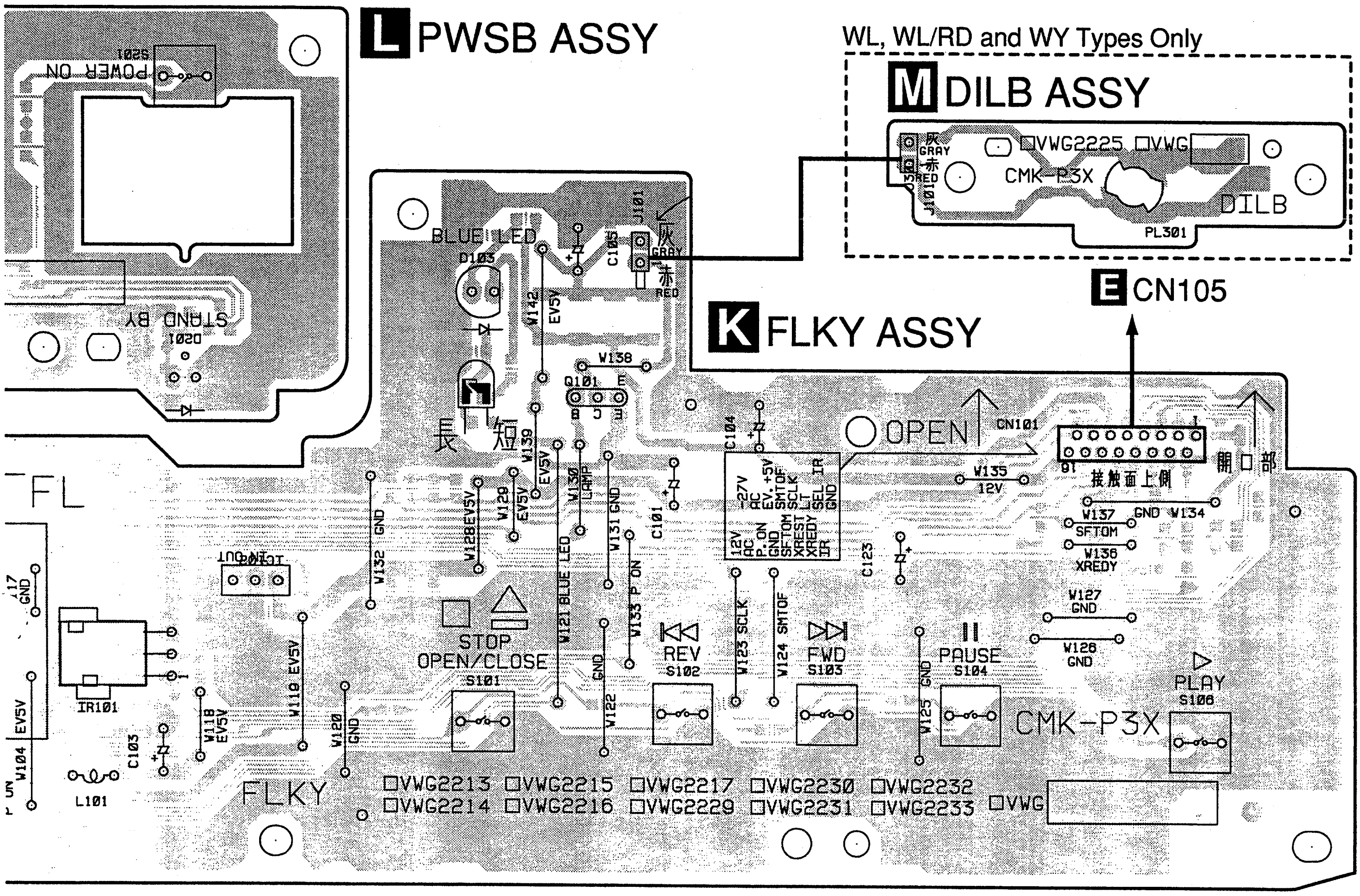
4.8 FLKY, PWSB and DILB ASSYS

SIDE A

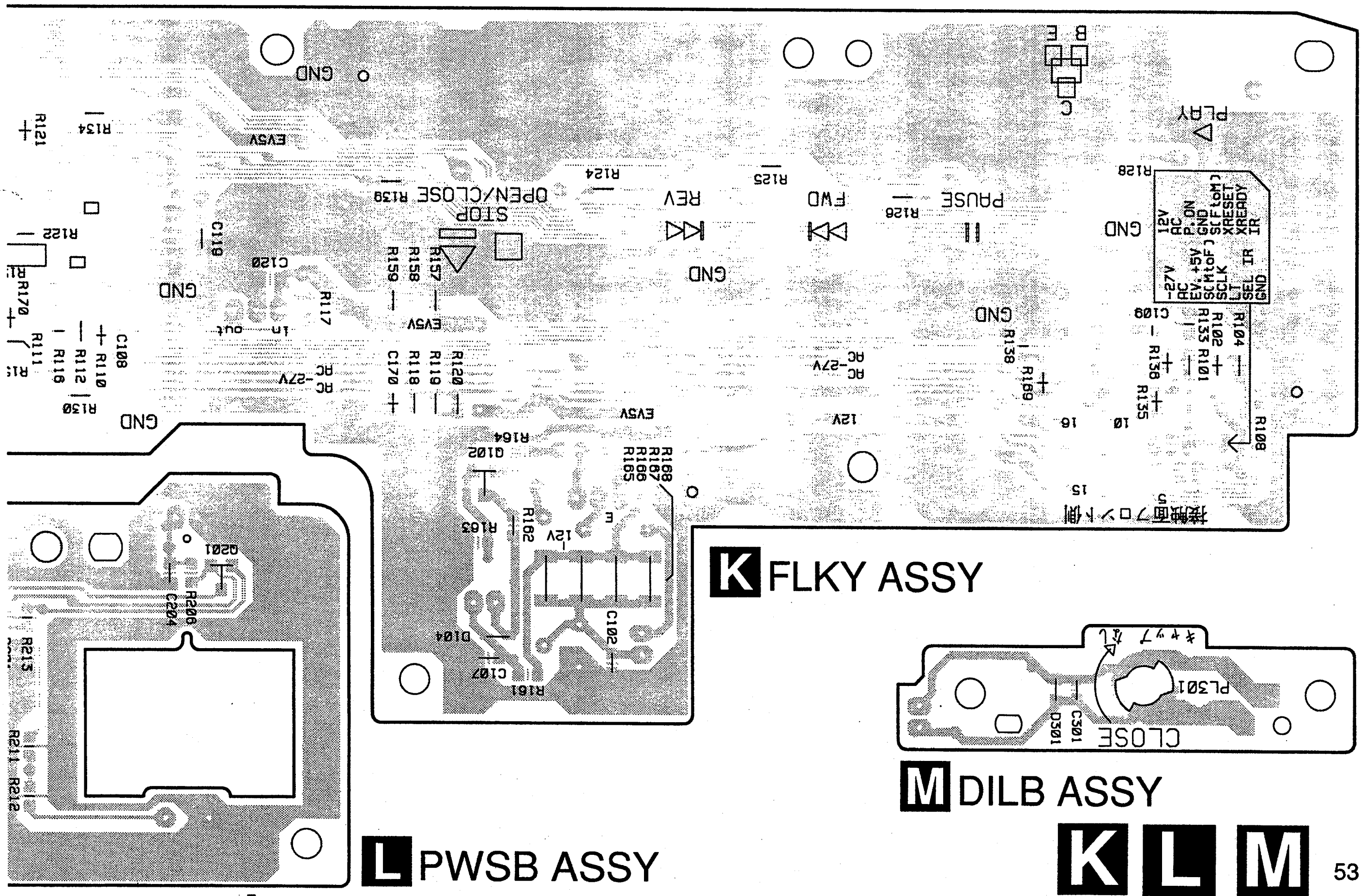

POWER ON
S201
CMK-P3X
PROGRE SCAN DVD AUDIO D-OUT OFF FL OFF
PWSB
D202
D203
D204
D205
CN201
GND
EV.+5V
KEY0
STAND BY
D-OUT OFF
FL OFF
DVD AUDIO
PROGRE SCAN
W201 EV5V
W202 GND
W203 GND
VWG2219
VWG2220
VWG2221
VWG2222
VWG2223
VWG
長
短
BY
V101
R191
R192
R193
FL
CN102
W105 GND
W106 KEY0
W107 PROGRE SCAN
W108 DVD AUDIO
W109 EV5V
W102 EV5V
W101 GND
W110 BLUE LED
W111 GND
W141 P ON
C117
PC
IC101
W112 GND
X101
W113 GND
W115 GND
W117 GND
W103 EV5V
W114 KEY1
W116 KEY0
W104 EV5V
W140 P ON
IR101
C103
L101

SIDE B

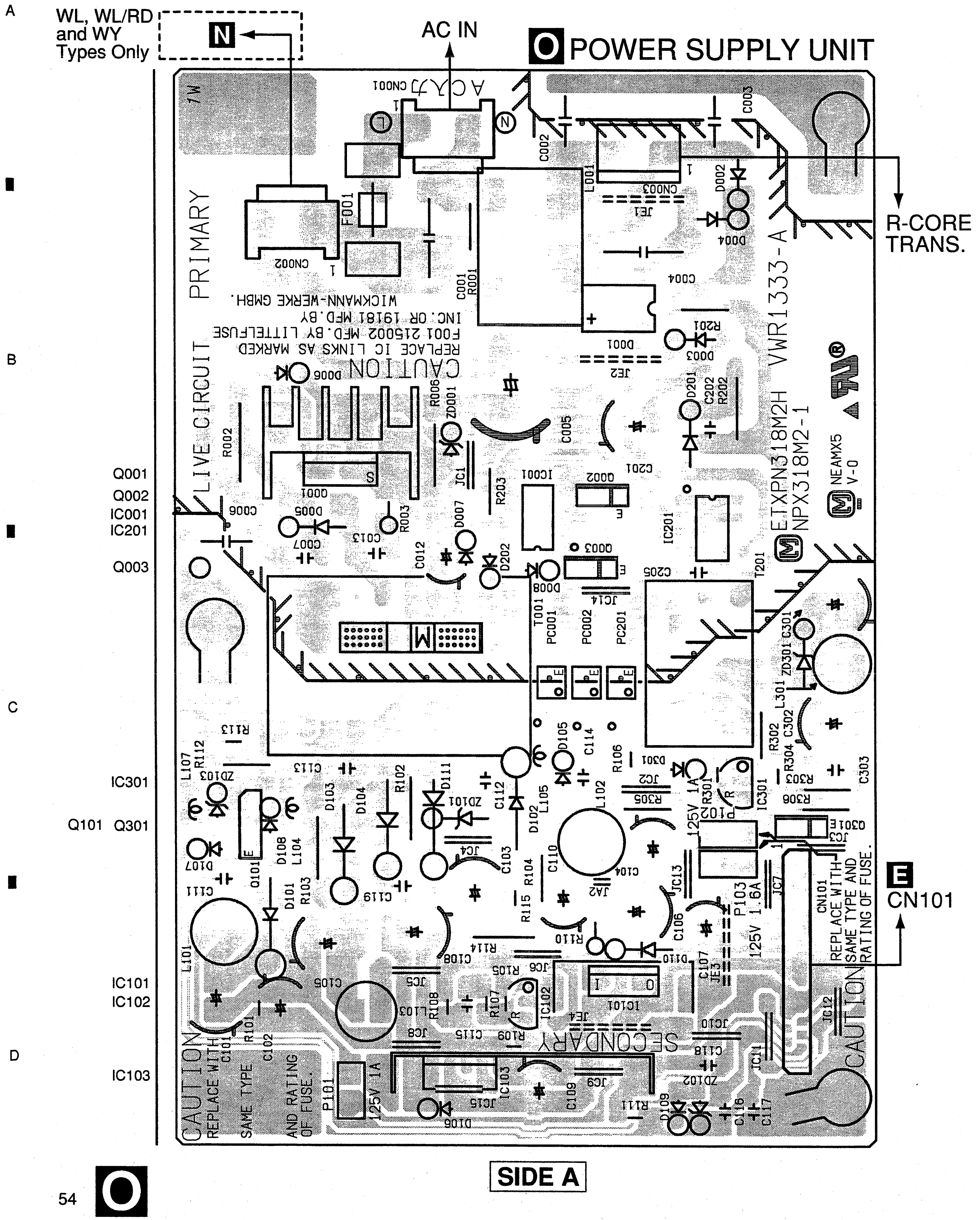

GND
EV5V
MECHA SW
R113
R144
R145
R114
TES
R171
OEM
R137
R147
R154
R148
C115
C116
IC101
R160
C106
R153
R150
R108
R143
R142
R105
C118
C110
C114
R127
R123
R121
R134
C112
C111
R141
MS
R140
C113
REG
R122
R150
R170
R107
R103
R109
R152
R111
R110
R112
R119
R130
C108
GND
EV.+5V
KEY0
STAND BY
D-OUT OFF
FL OFF
DVD AUDIO
PROGRE SCAN
C201
Q202
Q203
Q204
Q205
R202
R207
R208
R203
R209
R204
R214
R210
R215
R201
R205
R213
R211
R212
C202
C203
C206
C205
B
C
E


L PWSB ASSY
WL, WL/RD and WY Types Only
M DILB ASSY
□VWG2225 □VWG
CMK-P3X
DILB
PL301
J101
GRAY
RED
E CN105
K FLKY ASSY
POWER ON
S201
STAND BY
D201
BLUE LED
D103
J101
C105
EV5V
W142
W138
Q101
B C E
長
短
W139
EV5V
W130 LAMP
C104
OPEN
CN101
W135 12V
接触面上側
開口部
W137 GND W134
SFTOM
W136 XREDY
-27V AC EV.+5V SMTOF SFTOM SCLK XRESET LT SEL IR XREDY GND P.ON 12V
C101
C123
FL
W132 GND
W128 EV5V
W120 EV5V
W131 GND
W133 P.ON
W121 BLUE LED
IN OUT
IC101
GND
IR101
EV5V
W104
W118 EV5V
W110 EV5V
W100 GND
C103
L101
STOP
OPEN/CLOSE
S101
GND
W122
REV
S102
W123 SCLK
W124 SMTOF
FWD
S103
W125 GND
PAUSE
S104
W127 GND
W126 GND
PLAY
S106
CMK-P3X
FLKY
□VWG2213 □VWG2215 □VWG2217 □VWG2230 □VWG2232
□VWG2214 □VWG2216 □VWG2229 □VWG2231 □VWG2233 □VWG

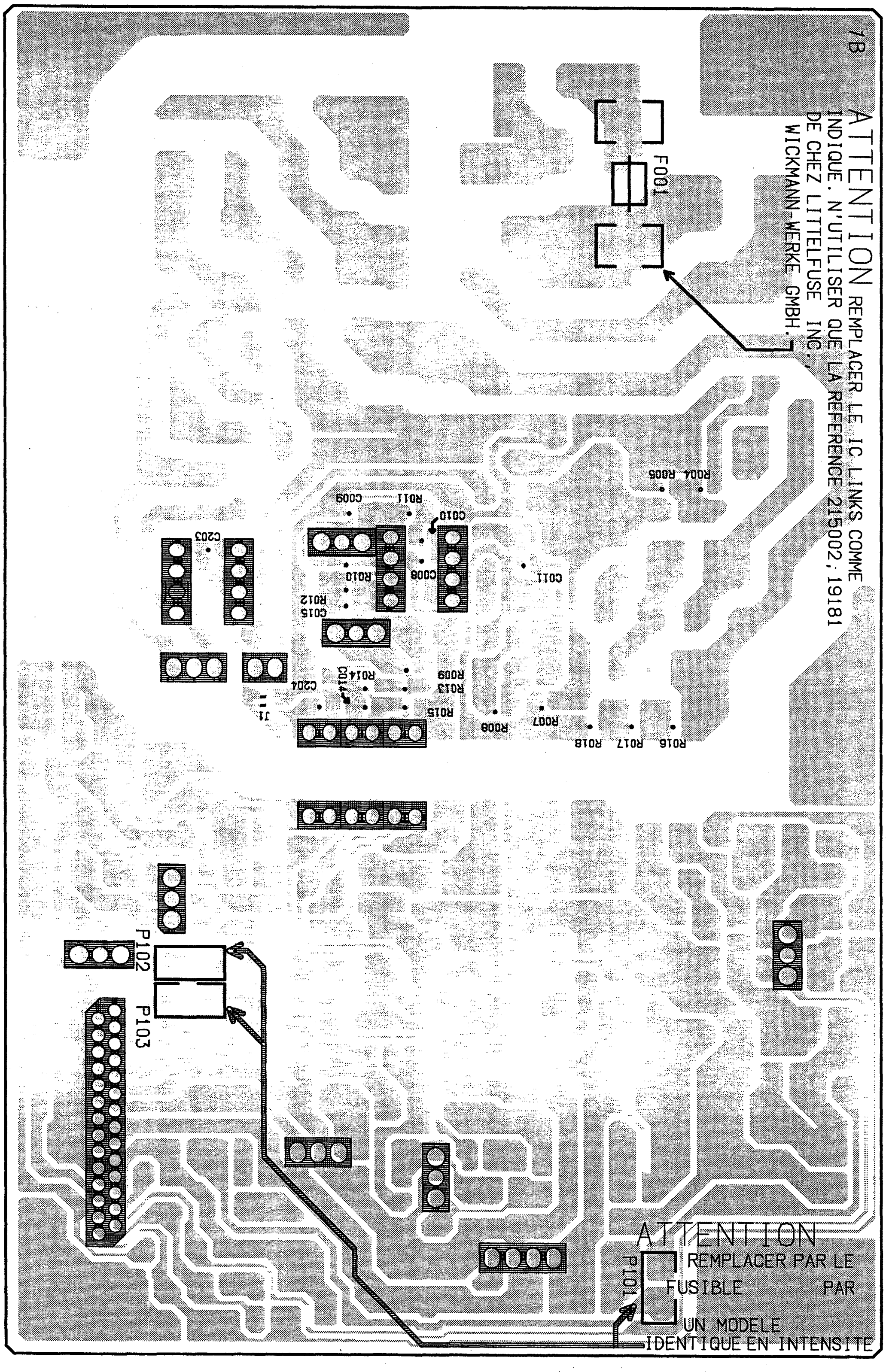
(VNP1780-A)


GND
EV5V
R121
R134
R122
R170
R111
R112
R116
R110
C108
R130
GND
C119
C120
R117
in out
GND
OPEN/CLOSE R139
STOP
R159 R158 R157
EV5V
R170 R118 R119 R120
AC -27V AC
R124
REV
R125
FWD
R126
PAUSE
GND
GND
AC -27V AC
B E C
PLAY
R128
GND
12V AC P.ON GND SFTOM SCLK XRESET XREADY IR
-27V AC EV.+5V SMTOF SCLK LT SEL IR GND
C109
R138
R109
R104
R102
R133
R101
R135
R108
EV5V
12V
R164
Q102
R168 R167 R166 R165
R103
R102
12V
E
接触面フロント側
5 15
Q201
C204
R206
R213
R211 R212
D104
C107
R161
C102
K FLKY ASSY
PL301
D301
C301
CLOSE
M DILB ASSY
L PWSB ASSY

4.9 POWER SUPPLY UNIT

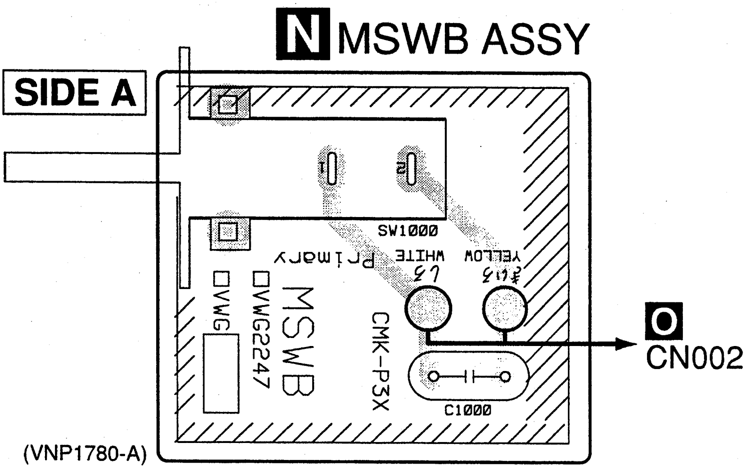

A
B
C
D
WL, WL/RD and WY Types Only
N
AC IN
O POWER SUPPLY UNIT
R-CORE TRANS.
E CN101
PRIMARY
LIVE CIRCUIT
SECONDARY
VWR1333-A
ETXPN318M2H
NPX318M2-1
CAUTION REPLACE WITH SAME TYPE AND RATING OF FUSE.
Q001
Q002
IC001
IC201
Q003
IC301
Q101 Q301
IC101
IC102
IC103
SIDE A

O POWER SUPPLY UNIT


7B
ATTENTION REMPLACER LE IC LINKS COMME INDIQUE. N'UTILISER QUE LA REFERENCE 215002, 19181 DE CHEZ LITTELFUSE INC., WICKMANN-WERKE GMBH.
F001
R004 R005
R011 C009
C010
C203
C008
R010
C011
R012
C015
C014
R014
C204
R009
R013
J11
R015
R008
R007
R018 R017 R016
P102
P103
P101
ATTENTION
REMPLACER PAR LE FUSIBLE PAR UN MODELE IDENTIQUE EN INTENSITE

SIDE B

4.10 MSWB ASSY (For WL, WL/RD and WY Types)


N MSWB ASSY
SIDE A
SW1000
Primary
WHITE
YELLOW
MSWB
VWG2247
VWG
CMK-P3X
C1000
O
CN002
(VNP1780-A)

5. PCB PARTS LIST

NOTES: ●*Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*

●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

●*When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56×10^1 → 561 .... RD1/4PU $\boxed{5}\boxed{6}\boxed{1}$ J
47k Ω → 47×10^3 → 473 .... RD1/4PU $\boxed{4}\boxed{7}\boxed{3}$ J
0.5 Ω → R50 .... RN2H $\boxed{R}\boxed{5}\boxed{0}$ K
1 Ω → 1R0 .... RS1P $\boxed{1}\boxed{R}\boxed{0}$ K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562×10^1 → 5621 .... RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F

■LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.					Remarks
		DV-38A /KU/CA	DV-S88A /LB	DV-S838A /WL	DV-S838A /WL/RD	DV-939A /WY	
NSP	LOAB ASSY	VWM1798	VWM1798	VWM1798	VWM1798	VWM1798	
NSP	├ LOMB ASSY	VWG1886	VWG1886	VWG1886	VWG1886	VWG1886	
NSP	└ LOSB ASSY	VWG1885	VWG1885	VWG1885	VWG1885	VWG1885	
	TRAVERSE MECHANISM ASSY-S	VXX2653	VXX2653	VXX2653	VXX2653	VXX2653	
NSP	├ SMEB ASSY	VWG2048	VWG2048	VWG2048	VWG2048	VWG2048	
NSP	└ FGSB ASSY	VWG2009	VWG2009	VWG2009	VWG2009	VWG2009	
	DVDM ASSY	VWS1421	VWS1421	VWS1424	VWS1424	VWS1425	
	DSPB ASSY	VWG2212	VWG2212	VWG2212	VWG2212	VWG2212	
NSP	JKSB ASSY	VWM2022	VWM2021	VWM2024	VWM2024	VWM2025	
	├ AJKB ASSY	VWV1763	VWV1763	VWV1763	VWV1763	VWV1764	
	├ DJKB ASSY	VWV1797	VWV1797	VWV1798	VWV1798	VWV1798	
	├ VJKB ASSY	VWV1853	VWV1852	VWV1852	VWV1852	VWV1854	
	└ SCRB ASSY	Not used	Not used	Not used	Not used	VWV1793	
NSP	FLKB ASSY	VWM2010	VWM2011	VWM2012	VWM2012	VWM2013	
	├ FLKY ASSY	VWG2230	VWG2231	VWG2232	VWG2232	VWG2233	
NSP	├ PWSB ASSY	VWG2219	VWG2221	VWG2220	VWG2220	VWG2220	
NSP	├ DILB ASSY	Not used	VWG2225	VWG2225	VWG2225	VWG2225	
NSP	└ MSWB ASSY	Not used	Not used	VWG2247	VWG2247	VWG2247	
⚠	POWER SUPPLY UNIT	VWR1333	VWR1333	VWR1333	VWR1333	VWR1333	

G AJKB ASSY

VWV1763 and VWV1764 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		VWV1763	VWV1764	
	R129, R130	Not used	RS1/16S0R0J	
	CN102 KR Connector 3P	Not used	B3B-PH-K-S	

H DJKB ASSY

VWV1797 and VWV1798 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		VWV1797	VWV1798	
	S901	Not used	VSH1020	
	R921	RS1/16S682J	Not used	
	R922, R924	Not used	RS1/16S103J	
	R923	Not used	RS1/16S153J	
	R925	Not used	RS1/16S682J	

E DVDM ASSY

VWS1421, VWS1424 and VWS1425 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		VWS1421	VWS1424	VWS1425	
	IC271,IC282	TC7W53FU	Not used	TC7W53FU	
	IC281	BA4510F	Not used	BA4510F	
	IC806	Not used	MB81F161622C-80FN	MB81F161622C-80FN	
	Q271,Q281	DTC114EUA	Not used	DTC114EUA	
	C271-C274	CKSRYB223K50	Not used	CKSRYB223K50	
	C275	CCSRCH102J50	Not used	CCSRCH102J50	
	C279,C285,C287	CKSRYF104Z16	Not used	CKSRYF104Z16	
	C281,C282	CCSRCH5R0C50	Not used	CCSRCH5R0C50	
	C283,C284	CCSRCH560J50	Not used	CCSRCH560J50	
	C286	CCSRCH680J50	Not used	CCSRCH680J50	
	C875,C876,C878,C879,C884	Not used	CKSRYF105Z10	CKSRYF105Z10	
	C880	Not used	CKSQYF225Z16	CKSQYF225Z16	
	R3	Not used	RS1/16S223J	RS1/16S103J	
	R215,R273,R712	Not used	RS1/16S0R0J	Not used	
	R274,R279	RS1/16S473J	Not used	RS1/16S473J	
	R275,R281-R284,R290	RS1/16S472J	Not used	RS1/16S472J	
	R280,R713	RS1/16S0R0J	Not used	RS1/16S0R0J	
	R285,R286	RS1/16S683J	Not used	RS1/16S683J	
	R287	RS1/16S1002F	Not used	RS1/16S1002F	
	R288	RS1/16S1801F	Not used	RS1/16S1801F	
	R289	RS1/16S1503F	Not used	RS1/16S1503F	
	R4	RS1/16S103J	RS1/16S103J	Not used	

K FLKY ASSY

VWG2230, VWG2231, VWG2232 and VWG2233 are constructed the same except for the following :

Mark	Symbol and Description	Part No.				Remarks
		VWG2230	VWG2231	VWG2232	VWG2233	
	Q101	Not used	DTD113ES	DTD113ES	DTD113ES	
	R141	RS1/10S123J	RS1/10S473J	RS1/10S273J	RS1/10S273J	
	R143	RS1/16S472J	RS1/16S623J	RS1/16S683J	RS1/16S203J	
	R144	RS1/16S0R0J	RS1/16S0R0J	Not used	Not used	
	R145	Not used	Not used	RS1/16S0R0J	RS1/16S0R0J	
	J101	Not used	PF02NN2D15	PF02NN2D15	PF02NN2D15	

L PWSB ASSY

VWG2219, VWG2221 and VWG2220 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		VWG2219	VWG2221	VWG2220	
	S201	ASG7013	ASG7013	Not used	
	R206	RS1/16S821J	RS1/16S821J	RS1/16S221J	
NSP	J201 Cord with Plug	DE010WC0	Not used	DE010WC0	

I VJKB ASSY

VWV1791, VWV1790 and VWV1792 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		VWV1853	VWV1852	VWV1854	
	Q607	Not used	Not used	IMZ1A	
	Q630, Q633	Not used	2SA1037K	Not used	
	Q631, Q634	Not used	HN1C01F	Not used	
	Q651	Not used	Not used	DTC143EK	
	Q652	Not used	Not used	DTA143EK	
	Q653	Not used	DTC143EK	Not used	
	D611, D612	Not used	Not used	MA111	
	D624	Not used	UDZS5.6B	Not used	
	D625	Not used	DA204K	Not used	
	RY601, RY602	Not used	Not used	VSR1016	
	L728, L731, L734	Not used	VTL1082	Not used	
	L783	Not used	VTL1076	VTL1076	
	L788, L789	Not used	Not used	VTL1076	
	C661, C663	Not used	Not used	CKSRYF104Z25	
	C666	Not used	Not used	CKSRYB103K50	
	C783	Not used	CCSRCH101J50	CCSRCH101J50	
	C811, C813, C821, C823	Not used	CKSRYF104Z25	Not used	
	C815, C825, C835	Not used	CCSRCH470J50	Not used	
	C822, C824	Not used	VCH1221 (10μF/16V)	Not used	
	R616, R686	Not used	Not used	RS1/16S68R0F	
	R747-R749	Not used	Not used	RS1/16S75R0F	
	R665	Not used	Not used	RS1/16S222J	
	R666	Not used	Not used	RS1/16S122J	
	R689, R694	Not used	RS1/16S0R0J	Not used	
	R690-R692	RS1/16S0R0J	RS1/16S0R0J	Not used	
	R693	Not used	Not used	RS1/16S0R0J	
	R695, R696	Not used	RS1/16S103J	Not used	
	R729, R732	Not used	RS1/16S68R0F	Not used	
	R735	Not used	RS1/16S75R0F	Not used	
	R811, R821	Not used	RS1/16S222J	Not used	
	R812, R816, R822, R826	Not used	RS1/16S101J	Not used	
	R813, R823	Not used	RS1/16S102J	Not used	
	R814, R824	Not used	RS1/16S221J	Not used	
	CN604 14P D-Socket	Not used	AKP7137	Not used	
	CN692 20P FFC Connector	Not used	Not used	VKN1506	

■ PCB PARTS LIST FOR DV-38A/KU/CA UNLESS OTHERWISE NOTED

A LOMB ASSY

OTHERS

Mark	No.	Description	Part No.
	CN401	KR CONNECTOR	B2B-PH-K-S

B LOSB ASSY

SWITCH

Mark	No.	Description	Part No.
	S301		VSK1011

OTHERS

Mark	No.	Description	Part No.
	CN303	KR CONNECTOR	B2B-PH-K-S
	CN302	8P FFC CONNECTOR	VKN1268
	CN301	12P FFC CONNECTOR	VKN1272

C SMEB ASSY

SWITCH

Mark	No.	Description	Part No.
	S201		DSG1016

OTHERS

Mark	No.	Description	Part No.
	CN201	3P FFC CONNECTOR	52044-0345
	CN202	8P FFC CONNECTOR	VKN1212
		PC BOARD SMEB	VNP1695

D FGSB ASSY

SEMICONDUCTOR

Mark	No.	Description	Part No.
	PC101		GP2S60

RESISTORS

Mark	No.	Description	Part No.
		All Resistors	RS1/10S□□□J

E DVDM ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC261,IC281,IC302		BA4510F
	IC251		BA6195FP
	IC1002		HY58163210TQ-10F
	IC702		K4E640812C-TC60
	IC101		LA9701M
	IC201		LC78652W
	IC351		M56788FP
	IC803		M5M4V18165DTP-6S
	IC801		M65774AFP
	IC805		MB81F161622C-80FN
	IC601		PD3410A
	IC701		PE5220A
	IC1001		PM0024AF
	IC1003		PM0030A
⚠	IC1201,IC891		PQ2TZ15
	IC951		SM8703AV
⚠	IC401		TA78M08F
	IC604		TC55V1001AF8
	IC907		TC74VHC153FT
	IC902		TC74VHC157FT
	IC612		TC74VHC541FT
	IC608		TC74VHCT541AFT
	IC958,IC959		TC7S02F
	IC161,IC915,IC916		TC7SET08FU
	IC613		TC7SH04FU
	IC917		TC7SH08FU
	IC912		TC7SHU04F
	IC299		TC7SZ32FU
	IC303,IC304		TC7SZU04F
	IC271,IC282		TC7W53FU
	IC901,IC904		TC7WH157FU
	IC956,IC957		TC7WH74FU
	IC603		VYW1770
	Q109,Q1310-Q1312,Q1410-Q1412		2SA1576A
	Q1510-Q1512,Q1610-Q1612		2SA1576A
	Q1710-Q1712		2SA1576A
	Q105,Q114,Q130,Q603		2SC4081
	Q602		DTA114EUA
	Q107,Q111,Q271,Q281,Q601		DTC114EUA
	Q102,Q106		HN1A01F
	Q103,Q542,Q543		HN1B04FU
	Q101		HN1C01F
	Q112,Q113		HN1C01FU
	Q108		HN1K03FU
	Q571		RN1911
	D302,D303		KV1470
	D601		RB501V-40
	D571,D572		RB521S-30

COILS AND FILTERS

Mark	No.	Description	Part No.
	L1001		LCYA100J2520
	L304		LCYA1R5J2520
	L101,L330		LCYA8R2J2520
	F1311,F1411,F1511	11MHz LPF (VIDEO)	VTF1151
	F1611	VIDEO FILTER	VTF1160
	L1801,L1821,L601,L701,L703	CHIP BEAD	VTL1124
	L805,L861,L891,L892,L9001	CHIP BEAD	VTL1124
	L9003,L9004,L9010	CHIP BEAD	VTL1124

CAPACITORS

Mark	No.	Description	Part No.
	C612		CCSRCH100D50
	C1072,C123,C145,C583,C617		CCSRCH101J50
	C655,C727,C728,C959		CCSRCH101J50
	C216,C275,C313		CCSRCH102J50
	C104-C108,C126,C314,C333		CCSRCH150J50
	C206,C210,C211		CCSRCH151J50
	C152		CCSRCH221J50
	C151		CCSRCH270J50
	C209,C324,C391,C392,C584		CCSRCH331J50
	C656		CCSRCH331J50
	C122		CCSRCH391J50
	C116,C128,C134,C297,C335		CCSRCH470J50
	C208		CCSRCH471J50
	C1321,C1421,C1521		CCSRCH4R0C50
	C283,C284		CCSRCH560J50
	C127,C281,C282,C334		CCSRCH5R0C50
	C124,C146,C286		CCSRCH680J50
	C117,C240,C351,C360		CCSRCH681J25
	C956		CCSRCH8R0D50
	C1087,C1088,C1836		CEV100M35
	C115,C129,C149,C201,C205		CEV101M16
	C254,C358,C368,C369,C402		CEV101M16
	C405,C408,C411,C414,C417		CEV101M16
	C419,C422,C429,C431,C450		CEV101M16
	C453,C454,C601,C731,C773		CEV101M16
	C802,C826,C861		CEV101M16
	C113,C139		CEV220M16
	C237		CEV220M6R3
	C1003,C1013,C1014,C1024,C1029		CEV221M4
	C1084,C1203,C142,C1802,C1822		CEV221M4
	C1831,C1832,C1838,C801,C803		CEV221M4
	C951,C952		CEV221M4
	C111,C207		CEV470M6R3
	C591		CKSQYB103K50
	C112,C140,C223,C224,C264		CKSQYB105K10
	C312		CKSQYB105K10
	C114,C581,C628		CKSQYF104Z25
	C1005-C1009,C1016,C1026,C1033		CKSQYF105Z16
	C1035,C1036,C1040,C1041		CKSQYF105Z16
	C1044-C1046,C1051-C1053		CKSQYF105Z16
	C1055,C1056,C1082,C1083,C125		CKSQYF105Z16
	C1803,C1804,C1816,C1817		CKSQYF105Z16
	C1823-C1825,C1834,C1835,C217		CKSQYF105Z16
	C327,C328,C451,C452		CKSQYF105Z16
	C1030,C148,C150,C1840,C862		CKSQYF225Z16

Mark	No.	Description	Part No.
	C864,C866,C868,C870,C873		CKSQYF225Z16
	C225,C239,C722		CKSRYB103K50
	C101,C118-C120,C212,C213		CKSRYB104K16
	C227,C231,C263,C315,C317		CKSRYB104K16
	C153,C266,C271-C274		CKSRYB223K50
	C357		CKSRYB332K50
	C214,C251,C261,C352		CKSRYB472K50
	C330		CKSRYB682K50
	C133,C136,C1826,C203,C220		CKSRYF103Z50
	C256,C320-C322,C354-C356		CKSRYF103Z50
	C371,C619,C703		CKSRYF103Z50
	C100,C1017,C1018,C102,C121		CKSRYF104Z16
	C131,C138,C143,C279,C285		CKSRYF104Z16
	C287,C332,C353,C359		CKSRYF104Z16
	C365-C367,C406,C409,C428		CKSRYF104Z16
	C576,C609,C713,C716,C863		CKSRYF104Z16
	C865,C867,C869,C871,C872		CKSRYF104Z16
	C1019-C1021,C1027,C109,C110		CKSRYF105Z10
	C130,C1302-C1304,C1402-C1404		CKSRYF105Z10
	C1502-C1504,C1602-C1604,C161		CKSRYF105Z10
	C1702-C1704,C1805-C1815		CKSRYF105Z10
	C1818,C1819,C1837,C199,C204		CKSRYF105Z10
	C215,C221,C222,C226,C230		CKSRYF105Z10
	C236,C255,C265,C298,C299		CKSRYF105Z10
	C319,C329,C430,C542,C543		CKSRYF105Z10
	C602-C607,C610,C611		CKSRYF105Z10
	C613-C616,C622,C623,C626		CKSRYF105Z10
	C631,C653,C654,C702		CKSRYF105Z10
	C704-C708,C710-C712		CKSRYF105Z10
	C717,C718,C721,C724,C725		CKSRYF105Z10
	C771,C772,C799,C806-C809		CKSRYF105Z10
	C811-C818,C821-C825		CKSRYF105Z10
	C827-C830,C832,C833		CKSRYF105Z10
	C836-C838,C840,C901,C902		CKSRYF105Z10
	C904,C907,C915,C916,C918		CKSRYF105Z10
	C927,C953,C954,C957,C958		CKSRYF105Z10
	C969,C972-C974		CKSRYF105Z10
	C372		CKSRYF223Z50
	C1015,C1833 (4.7μF)		VCG1039
	C147,C620,C715,C892 (100F/6.3V)		VCH1211
	C709,C720,C723 (2.2μF/6.3V)		VCH1219
	VC951 (30pF)		VCM1013

RESISTORS

Mark	No.	Description	Part No.
	R543,R545,R594,R613,R637		RAB4C103J
	R648,R649,R707,R755		RAB4C103J
	R1053-R1055,R121,R595		RAB4C220J
	R609,R610,R616,R617		RAB4C220J
	R733,R734,R804,R805,R860		RAB4C220J
	R863,R867-R873,R876,R877		RAB4C220J
	R123		RAB4C390J
	R602,R605-R608,R738-R741		RAB4C470J
	R715,R716		RAB4C473J
	R1200,R173,R350,R3510,R380		RS1/10S0R0J
	R411-R418,R420,R571-R574		RS1/10S0R0J
	R576,R577,R900,R951,R986		RS1/10S0R0J
	R1720,R287		RS1/16S1002F
	R1314,R1414,R1514		RS1/16S1501F
	R289,R358,R361		RS1/16S1503F
	R288		RS1/16S1801F
	R1027		RS1/16S2401F
	R1320,R1420,R1520		RS1/16S2701F
	R1058-R1060,R1313,R1413,R1513		RS1/16S3300F
	R1613,R1713		RS1/16S4700F
	R357,R362		RS1/16S7502F
	VR1001,VR1831 (1kΩ)		VCP1125
	Other Resistors		RS1/16S☐☐☐J

OTHERS

Mark	No.	Description	Part No.
	X951	CHIP CRYSTAL (27.0MHz)	VSS1086
		FLEXIBLE CABLE 07P	VDA1681
⚠	P101	CHIP FUSE (0.8A)	VEK1060
	CN120	24P FFC CONNECTOR	VKN1464
	CN105	16P FFC CONNECTOR	VKN1475
	CN104,CN512	12P FFC CONNECTOR	VKN1498
	CN121	20P FFC CONNECTOR	VKN1506
	CN112	B TO B CONNECTOR 30P	VKN1569
	CN101,CN103	28P FFC CONNECTOR	VKN1618
	CN111	B TO B CONNECTOR 50P	VKN1762
	KN1	EARTH METAL FITTING	VNF1109

F DSPB ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC4,IC6		K6R1008V1C-JC12
	IC5,IC7		K6R1016V1C-TC12
	IC33		LC89051V
	IC14,IC30,IC31		TC74VHC157FT
	IC12		TC74VHC595FT
	IC11,IC18		TC7SH04FU
	IC34		TC7SZ08FU
	IC32		TC7WH125FU
	IC29		TC7WH157FU
	IC28		TC7WH74FU
	IC16		TC7WU04F
	IC1,IC2		XCD56362PV100-P

COILS AND FILTERS

Mark	No.	Description	Part No.
	L1,L2		LCTA1R0J2520
	F2	CHIP EMI FILTER	VTH1040
	L3,L4	CHIP BEAD	VTL1124

CAPACITORS

Mark	No.	Description	Part No.
	C53		CCSRCH150J50
	C52		CCSRCH180J50
	C74		CCSRCH270J50
	C11,C2,C7		CEV101M16
	C1,C14,C4		CEV221M4
	C12,C13,C8		CEV470M6R3
	C61		CKSRYB103K50
	C113,C210		CKSRYB562K50
	C104-C109,C111,C115-C125		CKSRYF105Z10
	C127,C129,C154,C204-C209		CKSRYF105Z10
	C211-C224,C28,C29,C31		CKSRYF105Z10
	C33,C34,C51,C60		CKSRYF105Z10
	C70-C73		CKSRYF105Z10

RESISTORS

Mark	No.	Description	Part No.
	R110,R119		RAB4C0R0J
	R101,R108,R139,R143,R145		RAB4C103J
	R148,R207,R217		RAB4C103J
	R123,R163,R164,R167,R168		RAB4C470J
	R172,R173,R216		RAB4C470J
	Other Resistors		RS1/16S□□□J

OTHERS

Mark	No.	Description	Part No.
	X1	CRYSTAL RESONATOR (20MHz)	ASS7023
	CN2	B TO B CONNECTOR 30P	VKN1760
	CN1	B TO B CONNECTOR 50P	VKN1761

G AJKB ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC103,IC104		AD1852JRS
	IC112,IC113		AD1854JRS
⚠	IC109		LM2940CT-5.0
⚠	IC1107		LM2941CT/LB03
⚠	IC108		LM2991T/LB03
	IC110,IC111		NJM4580M
	IC101,IC102		NJM5532MD
	IC105		PD0236AM
	IC115		TC74VHC157FT
	IC106		TC74VHCT541AFT
	IC114,IC117		TC7SHU04F
	Q103,Q104,Q117,Q119		2SA1037K
	Q101,Q102,Q113-Q116		2SD2114K
	Q105,Q106,Q111,Q118,Q120		2SK2033
	Q107,Q108		DTC124EK
⚠	D103-D106		EC11FS4
	D101,D102,D107		EP10QY03

COILS

Mark	No.	Description	Part No.
	L108-L110,L112	CHIP BEAD	VTL1081

CAPACITORS

Mark	No.	Description	Part No.
	C150,C152,C172,C174,C207		CEBA101M25
	C209,C211,C215,C217,C219		CEBA101M25
	C142,C143,C164,C165		CEBA470M25
	C113,C114,C128,C129,C132		CEGA101M25
	C186-C189		CEGA101M25
	C184,C185		CEGA470M25
	C121,C124,C213,C221		CEHAZA221M6R3
	C223,C224,C230		CEHAZA221M6R3
	C117,C118		CEHAZA471M6R3
	C139,C195,C197,C208,C210		CKSQYF104Z50
	C212,C216,C218,C220,C226		CKSQYF104Z50
	C228		CKSQYF104Z50
	C115,C116,C126,C127		CKSQYF105Z50
	C135,C136		CKSQYF105Z50
	C151,C153,C173,C175		CKSRYF104Z25
	C190-C193		CKSRYF104Z25
	C119,C120,C122,C123		CKSRYF105Z10
	C130,C131,C133,C198,C214		CKSRYF105Z10
	C222,C225,C232		CKSRYF105Z10
	C146,C147,C168,C169		CQHA122J2A
	C201,C202,C205,C206		CQHA122J2A
	C140,C141,C162,C163		CQHA181J2A
	C105-C108		CQHA221J2A
	C144,C145,C166,C167		CQHA391J2A
	C199,C200,C203,C204		CQHA391J2A
	C109-C112		CQHA681J2A
	C194,C196,C227,C229 (100µF/10V)		VCH1192
	C137,C138 (8800F/25V)		VCH1213

RESISTORS

Mark	No.	Description	Part No.
	R115,R116		RDR1/4PM104J
	R119-R122		RDR1/4PM152J
	R125-R128		RDR1/4PM332J
	R117,R118,R123,R124		RDR1/4PM392J
	R101-R104,R113,R114		RDR1/4PM471J
	R148,R149,R162,R163		RN1/10SE1003D
	R152,R153,R166,R167		RN1/10SE1501D
	R184,R185,R190,R191		RN1/10SE1501D
	R154,R155,R168,R169		RN1/10SE3301D
	R188,R189,R194,R195		RN1/10SE3301D
	R150,R151,R164,R165		RN1/10SE3601D
	R186,R187,R192,R193		RN1/10SE3601D
	R142,R143,R146,R147		RN1/10SE4700D
	R156,R157,R160,R161		RN1/10SE4700D
	R1103,R1104,R1114,R1116,R1117		RS1/10S0R0J
	R254,R257,R258,R260-R263		RS1/10S0R0J
	R265		RS1/10S0R0J
	Other Resistors		RS1/16S□□□J

OTHERS

Mark	No.	Description	Part No.
	CN103	3P TOP POST	B3P-VH
		SCREW	BBZ30P040FCC
	JA103	4P PIN JACK	VKB1125
	JA101	2P PIN JACK (WHITE)	VKB1139
	JA102	2P PIN JACK (RED)	VKB1140
	CN101	20P FFC CONNECTOR	VKN1251
		SCREW TERMINAL	VNE1948
	KN101-KN104	EARTH METAL FITTING	VNF1084

H DJKB ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	Q911		2SC2412K
	D931		MA111

COIL

Mark	No.	Description	Part No.
	L911	NOISE FILTER	RTF1167

CAPACITORS

Mark	No.	Description	Part No.
	C931		CCSRCH470J50
	C903,C951		CEAT470M10
	C904,C911,C932,C941,C952		CKSRYF104Z25
	C914		CKSRYF105Z10

RESISTORS

Mark	No.	Description	Part No.
	All Resistors		RS1/16S□□□J

OTHERS

Mark	No.	Description	Part No.
	JA931,JA932	JACK CONTROL JACK	RKN1004
	JA901	OPTICAL LINK OUT	TOTX179
	JA911	1P PIN JACK (BLK)	VKB1160
	CN901	12P FFC CONNECTOR	VKN1243
	CN902	7P FFC CONNECTOR	VKN1267

I VJKB ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC606		NJM78M06FA
⚠	IC607		NJM78M09FA
⚠	IC609		NJM79M06FA
	IC601-IC604		TK15420M
	Q618,Q621,Q624,Q627		2SA1037K
	Q602,Q603		2SC2412K
	Q601,Q608-Q610		2SC4081
	Q614,Q616		DTA143EK
	Q613,Q615		DTC143EK
	Q619,Q622,Q625,Q628		HN1C01F
	Q604-Q606,Q611,Q612		IMZ1A
	D621-D623		DA204K
	D614-D616		EP10QY03
	D601-D604		MA111
	D618-D620		UDZS5.6B

COILS

Mark	No.	Description	Part No.
	L790-L792	CHIP BEAD	VTL1076
	L701,L704,L707,L710,L713	CHIP BEAD	VTL1082
	L716,L719,L722,L725	CHIP BEAD	VTL1082

SWITCH

Mark	No.	Description	Part No.
	S601		VSH1020

CAPACITORS

Mark	No.	Description	Part No.
	C790,C791		CCSRCH101J50
	C671,C674		CCSRCH102J50
	C841		CCSRCH470J50
	C608,C610		CEAT101M10
	C699		CEAT101M50
	C617,C627		CEAT471M16
	C601,C603,C606,C613,C616	(10µF/16V)	VCH1221
	C621,C623,C626,C631,C641	(10µF/16V)	VCH1221
	C643,C646,C742,C744,C762	(10µF/16V)	VCH1221
	C764 (10µF/16V)		VCH1221
	C651,C657,C704 (47µF/6.3V)		VCH1222
	C662,C684		CKSRYB103K50
	C604,C605,C607,C609		CKSRYF104Z25
	C614,C615,C618,C624,C625		CKSRYF104Z25
	C628,C644,C645,C741,C743		CKSRYF104Z25
	C751,C753,C761,C763,C771		CKSRYF104Z25
	C773		CKSRYF104Z25
	C672,C673,C675,C676		CKSRYF105Z10

RESISTORS

Mark	No.	Description	Part No.
	R612,R614,R626,R627		RS1/16S1001F
	R636,R637,R647,R656		RS1/16S1001F
	R608,R841,R842,R844,R845		RS1/16S1002F
	R843		RS1/16S1802F
	R610,R611,R646		RS1/16S2201F
	R651		RS1/16S3300F
	R607		RS1/16S5100F
	R715,R718		RS1/16S6800F
	R702,R705,R708,R711,R714		RS1/16S68R0F
	R717		RS1/16S68R0F
	R606		RS1/16S7500F
	R720,R723,R726		RS1/16S75R0F
	Other Resistors		RS1/16S□□□J

OTHERS

Mark	No.	Description	Part No.
	CN602	4P MINI DIN SOCKET	AKP7023
		SCREW	BBZ30P080FCC
	JA601	2P PIN JACK (YEL)	VKB1135
	JA603	3P PIN JACK	VKB1151
	CN611	28P FFC CONNECTOR	VKN1259
	KN601,KN602	EARTH METAL FITTING	VNF1084

J SCRB ASSY (WY Type ONLY)

SEMICONDUCTORS

Mark	No.	Description	Part No.
	Q403,Q407		2SA1037K
	Q402,Q404,Q405		2SC2412K
	Q409		DTA124EK
	Q401,Q408		DTC124EK
	D411,D413,D415,D417,D421		DA204K
	D401-D406,D409		MA111
	D410,D412,D414,D416,D420		UDZS5.6B

RELAYS

Mark	No.	Description	Part No.
	RY401-RY406		VSR1016

CAPACITORS

Mark	No.	Description	Part No.
	C426,C427,C430,C431		CCSRCH391J50
	C441-C444		CCSRCH391J50
	C405,C407-C411,C413,C415		CKSRYF104Z25
	C417,C419,C421,C423		CKSRYF104Z25
	C433,C434		CKSRYF104Z25

RESISTORS

Mark	No.	Description	Part No.
	R421,R462		RS1/16S75R0F
	Other Resistors		RS1/16S□□□J

OTHERS

Mark	No.	Description	Part No.
	CN402	KR CONNECTOR 3P	B3B-PH-K-S
	JA401	RGB CONNECTOR	VKB1161
	CN491	20P FFC CONNECTOR	VKN1251

K FLKY ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC101		PE5185A
	IC102		S-806D
	Q102		DTC124EK
	D103		NSPB500-0008
	D104		UDZS6.2B

SWITCHES

Mark	No.	Description	Part No.
	S101-S104,S106		ASG7013

CAPACITORS

Mark	No.	Description	Part No.
	C101		CEAT470M10
	C104		CEAT470M16
	C103,C117		CEJQ101M10
	C111		CKSQYB102K50
	C106,C116		CKSQYF104Z25
	C108,C110,C112,C113		CKSRYB102K50
	C102,C114,C115,C119,C120		CKSRYF104Z25
	C170		CKSRYF104Z50

RESISTORS

Mark	No.	Description	Part No.
	R141		RS1/10S123J
	R140		RS1/10S273J
	Other Resistors		RS1/16S□□□J

OTHERS

Mark	No.	Description	Part No.
	CN102	FJ CONNECTOR 8P	08P-FJ
	IR101	REMOTE RECEIVER UNIT	GP1U28X
	V101	FL TUBE	VAW1060
		SPACER	VEC1599
	CN101	16P FFC CONNECTOR	VKN1276
		FL HOLDER	VNF1087
	X101	CERAMIC RESONATOR (5MHz)	VSS1142

L PWSB ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	Q202,Q203		DTA124EK
	D201-D205		SLR-343VC(NPQ)

SWITCH

Mark	No.	Description	Part No.
	S201		ASG7013

CAPACITOR

Mark	No.	Description	Part No.
	C201		CKSQYF104Z25

RESISTORS

Mark	No.	Description	Part No.
	All Resistors		RS1/16S□□□J

OTHERS

Mark	No.	Description	Part No.
	CN201	FJ CONNECTOR 8P	08R-FJ

M DILB ASSY (Except KU/CA Type)

SEMICONDUCTOR

Mark	No.	Description	Part No.
	D301		MA111

OTHERS

Mark	No.	Description	Part No.
	PL301	LAMP	VEL1023

N MSWB ASSY (WL, WL/RD, WY Types Only)

SWITCH

Mark	No.	Description	Part No.
⚠	S1000		ASG1006

OTHERS

Mark	No.	Description	Part No.
⚠		AC CORD TUBE	VEC2172

O POWER SUPPLY UNIT

OTHERS

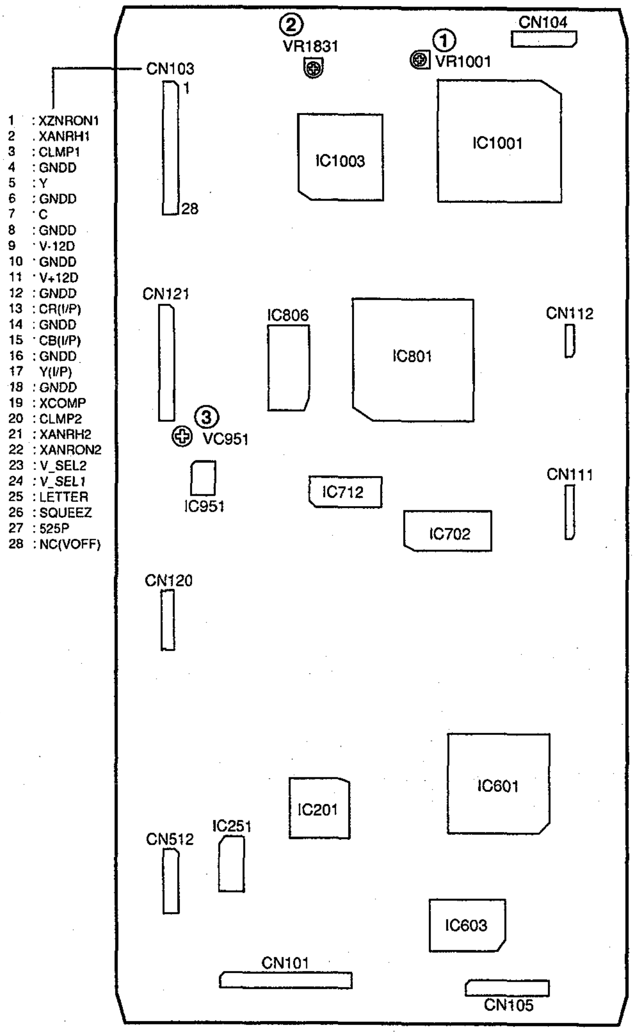
Mark	No.	Description	Part No.
⚠	F1	FUSE (2A)	VZE1005
⚠	P101,P102	PROTECTOR (1A)	VZE1002
⚠	P103	PROTECTOR (1.6A)	VZE1004

6. ADJUSTMENT

6.1 ADJUSTMENT ITEMS AND LOCATION

■ Adjustment Points (PCB Part)

E DVDM ASSY


②
VR1831
①
VR1001
CN104
CN103
1
28
1 : XZNRON1
2 : XANRH1
3 : CLMP1
4 : GNDD
5 : Y
6 : GNDD
7 : C
8 : GNDD
9 : V-12D
10 : GNDD
11 : V+12D
12 : GNDD
13 : CR(I/P)
14 : GNDD
15 : CB(I/P)
16 : GNDD
17 : Y(I/P)
18 : GNDD
19 : XCOMP
20 : CLMP2
21 : XANRH2
22 : XANRON2
23 : V_SEL2
24 : V_SEL1
25 : LETTER
26 : SQUEEZ
27 : 525P
28 : NC(VOFF)
IC1003
IC1001
CN121
IC806
IC801
CN112
③
VC951
IC951
IC712
IC702
CN111
CN120
IC601
IC201
IC251
CN512
IC603
CN101
CN105

SIDE A

■ Adjustment Items

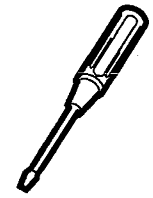
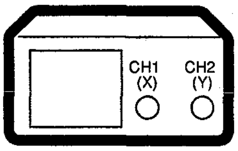
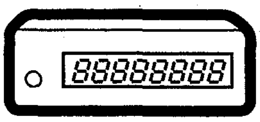
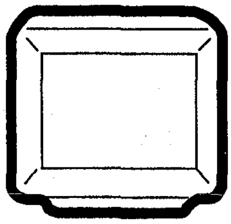
[Electrical Part]

① Y Level Adjustment

② Component Y Level Adjustment

③ 27MHz Clock Adjustment

6.2 JIGS AND MEASURING INSTRUMENTS

 ⊖ Screwdriver (small)	 Dual-trace oscilloscope (with delay) Frequency band ≧ 40MHz
 Frequency counter Display digit ≧ 8-digit	 TV monitor

6.3 NECESSARY ADJUSTMENT POINTS

When

■ Exchange PCB Assy

Exchange board
DVDM ASSY

➡

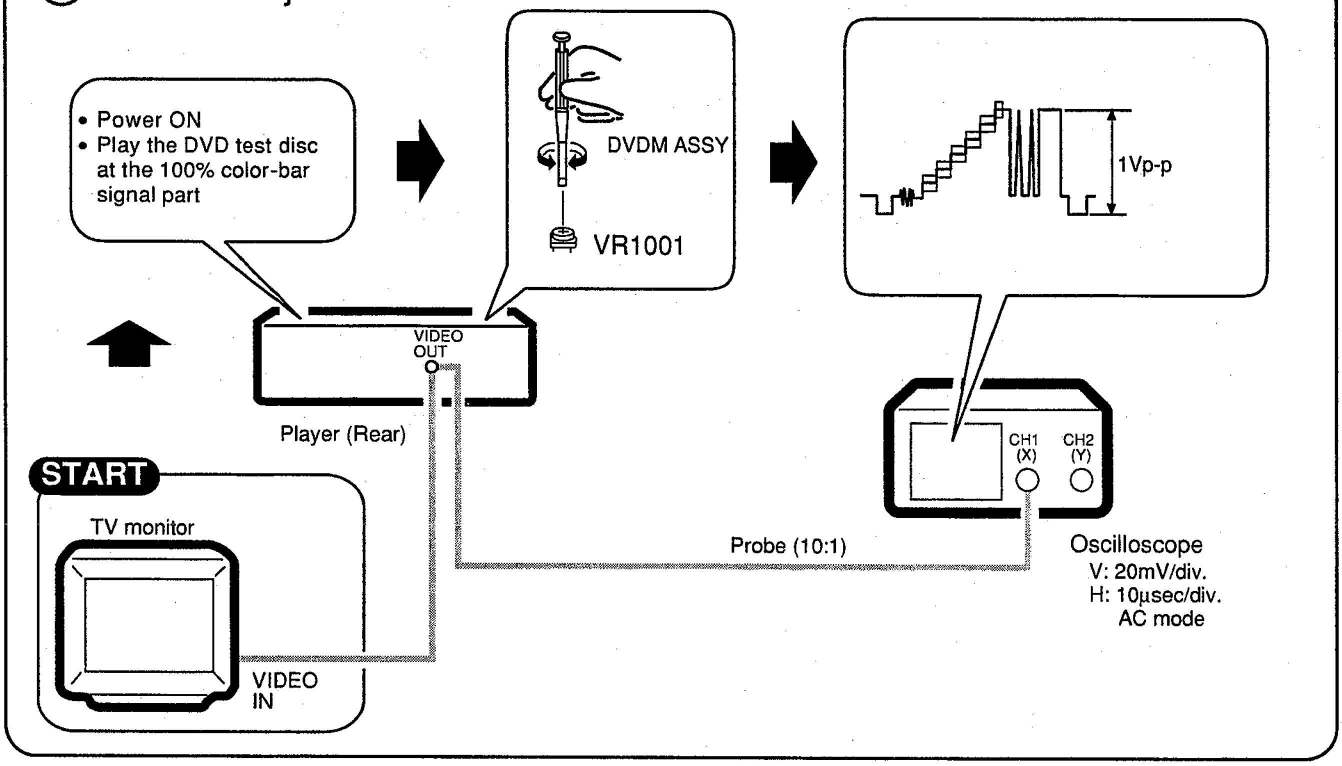
Adjustment Points

Mechanical point	————
Electric point	————

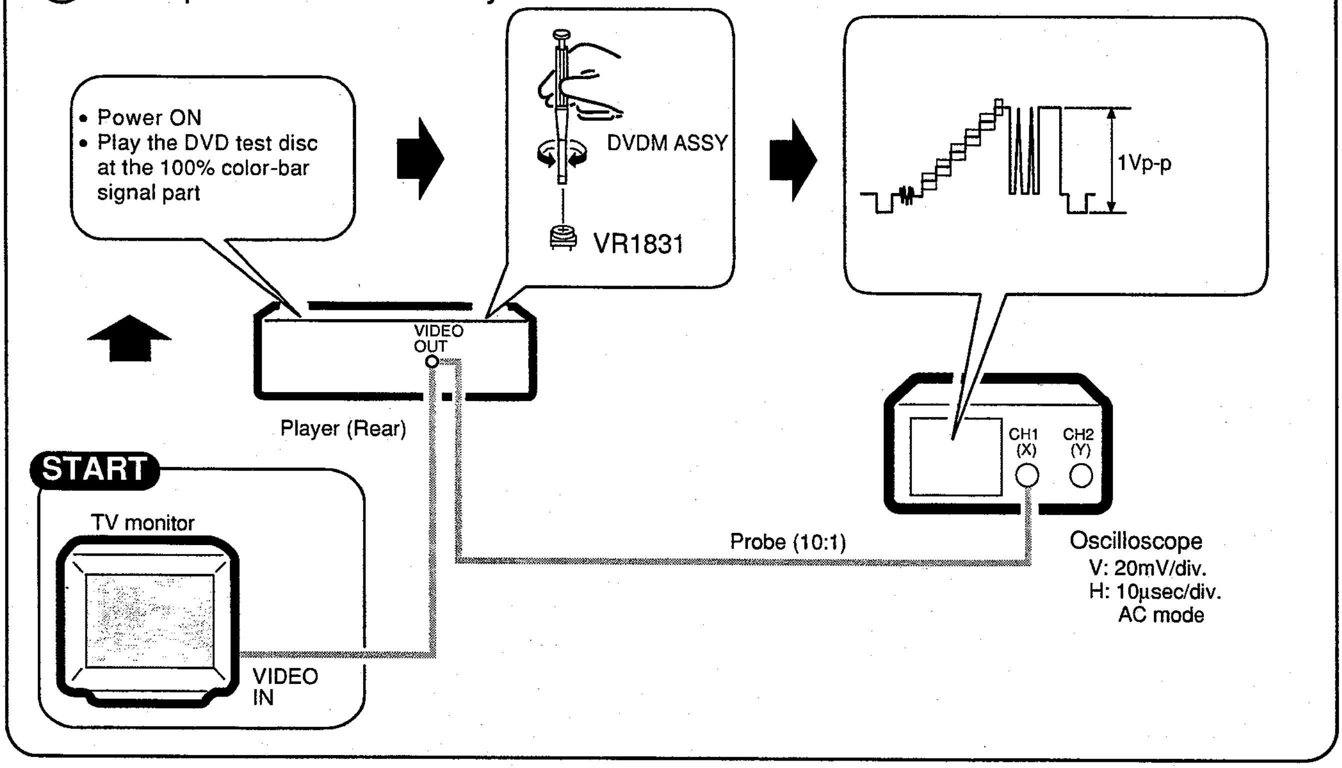
Note : ①,② and ③ are adjusted already.

6.4 ELECTRICAL ADJUSTMENT

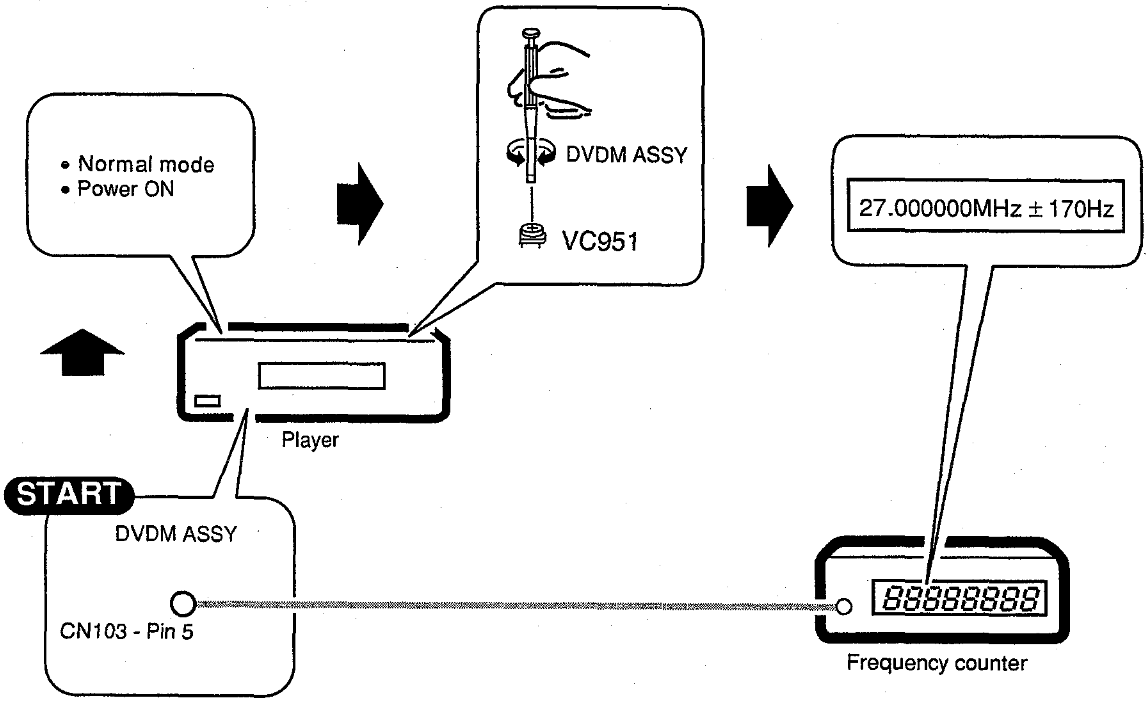
① Y Level Adjustment


• Power ON
• Play the DVD test disc at the 100% color-bar signal part
DVDM ASSY
VR1001
1Vp-p
VIDEO OUT
Player (Rear)
START
TV monitor
VIDEO IN
Probe (10:1)
CH1 (X)
CH2 (Y)
Oscilloscope
V: 20mV/div.
H: 10μsec/div.
AC mode

② Component Y Level Adjustment


• Power ON
• Play the DVD test disc at the 100% color-bar signal part
DVDM ASSY
VR1831
1Vp-p
VIDEO OUT
Player (Rear)
START
TV monitor
VIDEO IN
Probe (10:1)
CH1 (X)
CH2 (Y)
Oscilloscope
V: 20mV/div.
H: 10μsec/div.
AC mode

③ 27MHz Clock Adjustment


• Normal mode
• Power ON
DVDM ASSY
VC951
27.000000MHz ± 170Hz
Player
START
DVDM ASSY
CN103 - Pin 5
88888888
Frequency counter

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 ID NUMBER AND ID DATA SETTING

■ Entering the ID Number and ID Data for Players with DVD-Audio Compatibility

It is necessary with a player with DVD-audio compatibility to set an individual number (ID number) and ID data. If the number and data are not set correctly with the following procedure, operations in the future may not be guaranteed. You will find the ID number to be set on the yellow label on the rear panel.

Important: If no yellow label is found on the rear panel, write down the specified ID number by checking it according to "How to confirm the ID number" shown below.

■ The Input is Necessary When:

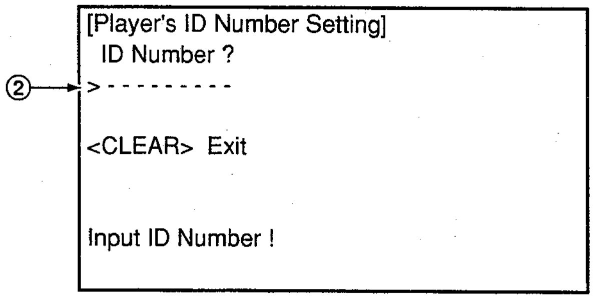
- Downloading FLASH-ROM is finished. (The latest version must be downloaded when a repair is made.)
- "No ID Number" is displayed on the screen or FL display immediately after the power is turned on or in Stop mode.
- If "No ID DATA" is displayed, the ID data must be entered.

Note:
Be sure to enter the ID number in Stop mode.
Use the service remote control (GGF1067) for operations. Only opening/closing of the tray are performed from the player.

■ How to Input the ID Number and ID Data

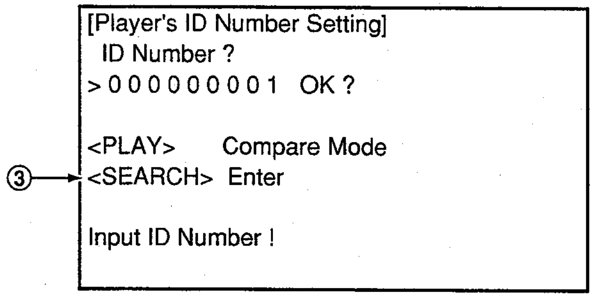
① To enter the input mode, press ESC+STEREO in a status with no ID number set, such as after FLASH-ROM downloading.

② As number input is enabled when the unit enters the input mode, input the 9-digit ID number.
(The entered number is also displayed on the FL display.)



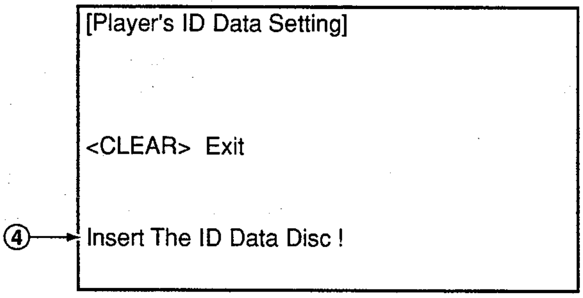
```
[Player's ID Number Setting]
  ID Number ?
>---------

<CLEAR>  Exit


Input ID Number !
```

③ After inputting the number, press SEARCH to register the ID number.



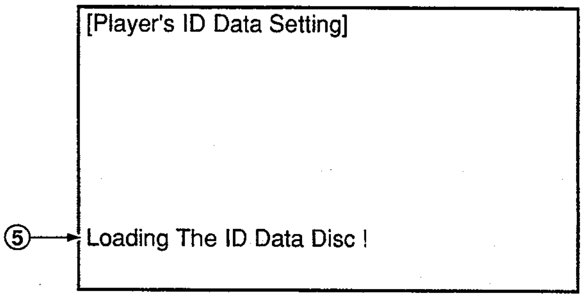
```
[Player's ID Number Setting]
  ID Number ?
>000000001  OK ?

<PLAY>     Compare Mode
<SEARCH>  Enter

Input ID Number !
```

④ When the ID number has been registered, the unit enters the ID data input mode. (The FL display indicates "NO ID DATA.")
In this condition, place the ID data disc on the tray and close the tray using the CLOSE key "■/▲" on the player.



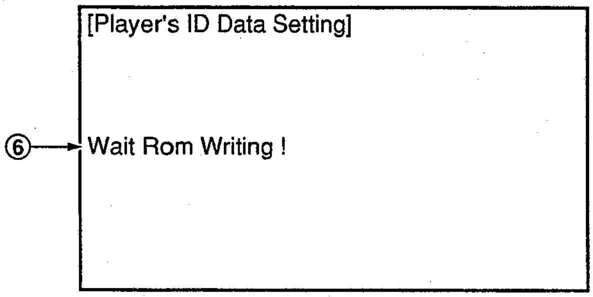
```
[Player's ID Data Setting]


<CLEAR>  Exit


Insert The ID Data Disc !
```

⑤ While the data are being read, the message shown in the figure at left is displayed on the screen.
(The FL display indicates "RD ID DATA.")



```
[Player's ID Data Setting]





Loading The ID Data Disc !
```

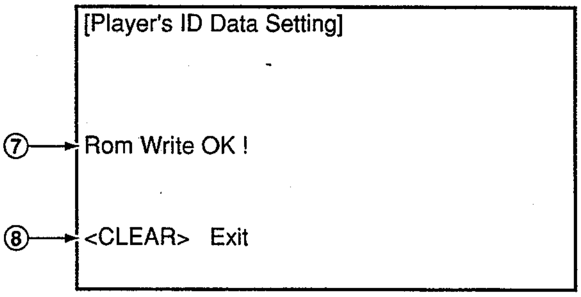
⑥ When the ID data have been read, the data are written to the FLASH-ROM.
(The FL display indicates "WR ID DATA.")



```
[Player's ID Data Setting]

Wait Rom Writing !
```

⑦ When the ID data have been written to the FLASH-ROM, the message "Rom Write OK" is displayed on the screen.
(The FL display indicates "ID DATA OK.")

⑧ After confirming this message, press CLEAR to exit the input mode.



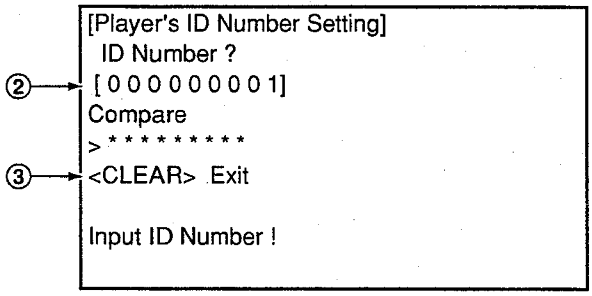
```
[Player's ID Data Setting]

Rom Write OK !

<CLEAR>  Exit
```

How to Confirm the ID Number

① Press ESC + STEREO with an ID number set, and the unit enters the ID number confirmation mode.

② The set ID number is displayed on the screen (and on the FL display), permitting you to confirm it.

③ To exit this mode, press CLEAR.

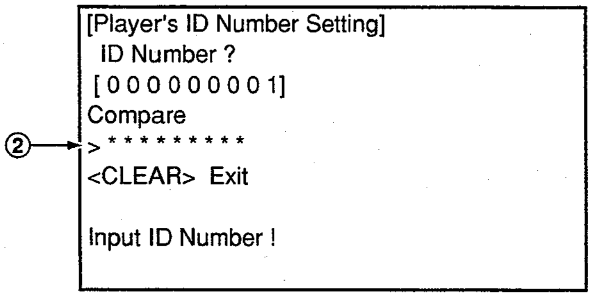


```
[Player's ID Number Setting]
 ID Number ?
 [000000001]
Compare
>*********
<CLEAR> Exit

Input ID Number !
```

How to Clear the ID Number

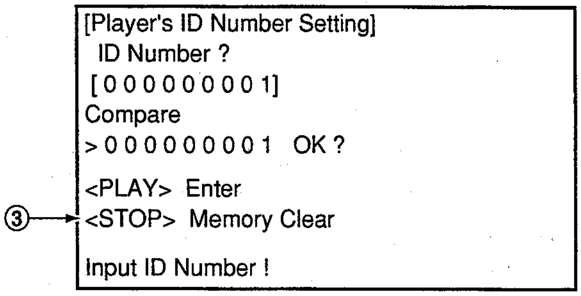
① Press ESC + STEREO with an ID number set, and the unit enters the ID number confirmation mode.

② Input the same number as the ID number you have set.



```
[Player's ID Number Setting]
 ID Number ?
 [000000001]
Compare
>*********
<CLEAR>  Exit

Input ID Number !
```

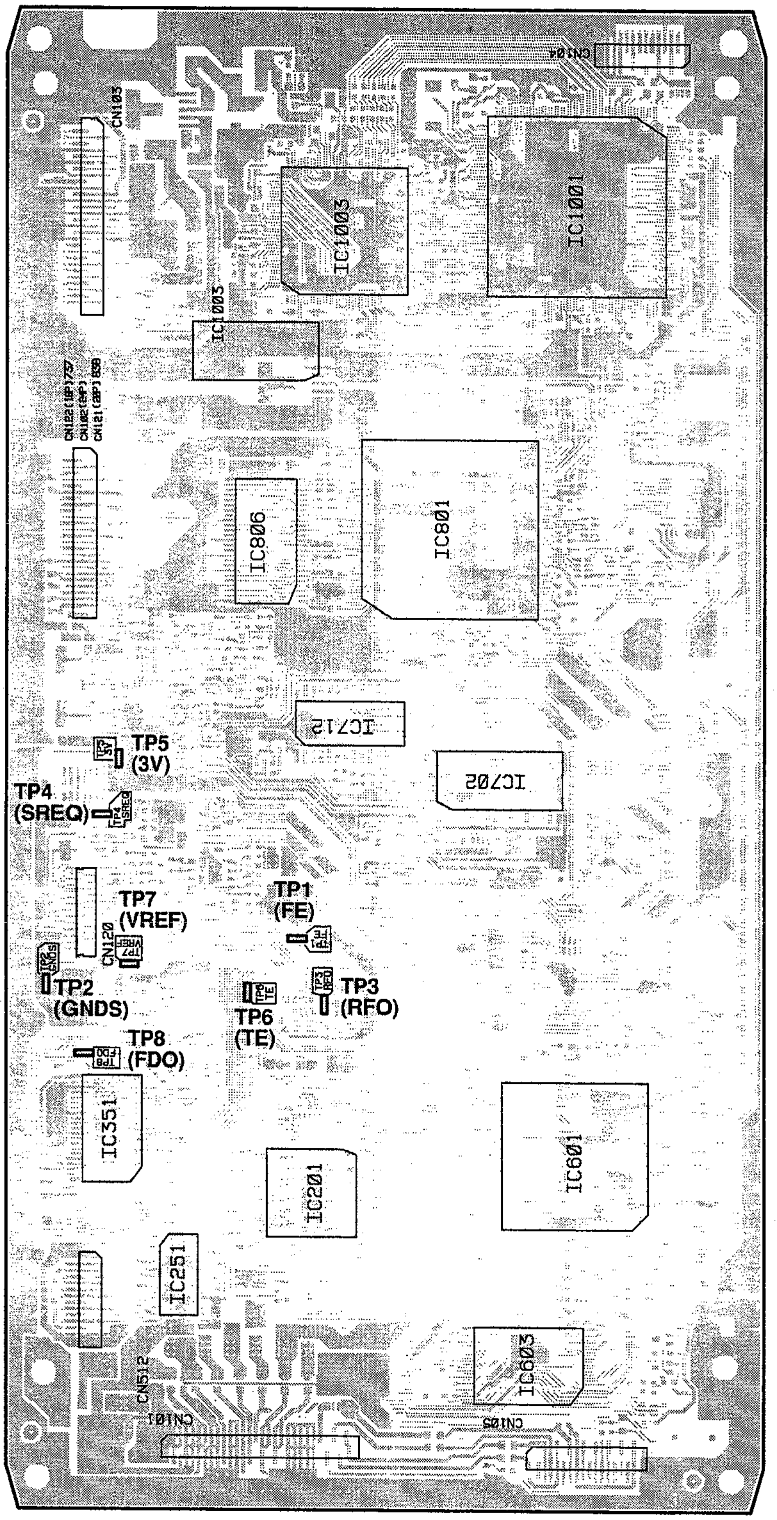
③ After inputting the number, press STOP.
Only when the entered number matches the set ID number, the ID number is cleared and the unit exits this mode.
If the numbers do not match, you must return to step 2.
(STOP is not accepted until 9 digits are entered.)



```
[Player's ID Number Setting]
 ID Number ?
 [000000001]
Compare
>000000001  OK ?
<PLAY>  Enter
<STOP>  Memory Clear

Input ID Number !
```

7.1.2 TEST POINTS LOCATION

This model has not test terminal.
Please use following points when checking the RF, FE and TE, etc..


CN104
CN103
IC1003
IC1001
IC1003
IC806
IC801
IC712
IC702
TP5
(3V)
TP4
(SREQ)
TP7
(VREF)
CN120
TP1
(FE)
TP2
(GNDS)
TP6
(TE)
TP3
(RFO)
TP8
(FDO)
IC351
IC201
IC601
IC251
IC603
CN512
CN101
CN105

E DVDM ASSY

■ LIST OF TEST POINTS

TP1 : FE
TP2 : GNDS
TP3 : RFO
TP4 : SREQ
TP5 : 3V
TP6 : TE
TP7 : VREF
TP8 : FDO

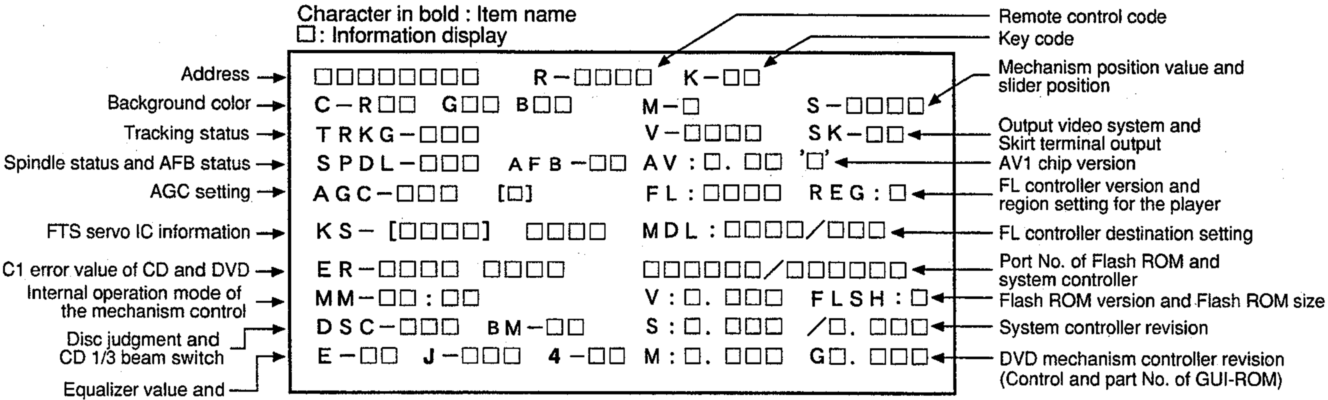
SIDE A

7.1.3 TEST MODE SCREEN DISPLAY

When the test mode is entered, press the ESC button and the TEST button in order of the test mode remote control unit (GGF1067).

Consecutive double-OSD display is supported during test mode. The screen is composed 10 lines with a maximum of 32 characters per line. It can't be used with the debugging display mode together.

• Screen Composition


Character in bold : Item name
□: Information display
Address
Background color
Tracking status
Spindle status and AFB status
AGC setting
FTS servo IC information
C1 error value of CD and DVD
Internal operation mode of the mechanism control
Disc judgment and CD 1/3 beam switch
Equalizer value and jitter value
□□□□□□□□ R−□□□□ K−□□
C−R□□ G□□ B□□ M−□ S−□□□□
TRKG−□□□ V−□□□□ SK−□□
SPDL−□□□ AFB−□□ AV:□. □□ '□'
AGC−□□□ [□] FL:□□□□ REG:□
KS− [□□□□] □□□□ MDL:□□□□/□□□
ER−□□□□ □□□□ □□□□□□/□□□□□□
MM−□□:□□ V:□. □□□ FLSH:□
DSC−□□□ BM−□□ S:□. □□□ /□. □□□
E−□□ J−□□□ 4−□□ M:□. □□□ G□. □□□
Remote control code
Key code
Mechanism position value and slider position
Output video system and Skirt terminal output
AV1 chip version
FL controller version and region setting for the player
FL controller destination setting
Port No. of Flash ROM and system controller
Flash ROM version and Flash ROM size
System controller revision
DVD mechanism controller revision (Control and part No. of GUI-ROM)

Test Mode Screen Display
(First Screen Display)

Caution :
The first screen and second screen switch by pressing [DISPLAY] key of the remote control unit.
It is only a version display part on the lower right of the screen those contents of display change.
ATB : ON/OFF information display and AGC manual setting display deleted with the second generation.
The displays of Tilt error value, Tilt servo status and pickup DVD/CLD display deleted with the third generation becomes LD part is deleted.

• Description of Each Item on the Display

(1) Address indication

The address being traced is displayed in number.

DVD : ID indication (hexadecimal number, 8 digits)	[* * * * * * * *]
CD : A-TIME (min. sec.)	[0 0 0 0 * * * *]

(Note : For DVDs, decimal-number indication is possible.)

(2) Code indication of the remote control unit [R – * * * *]

The code for the key pressed on the remote control unit, which is received by the FL controller, is displayed while the key is pressed. In the case of the double code, the second code will be displayed.

(3) Key code indication for the main unit [K – * *]

The code for the key pressed on the main unit, which is received by the system controller, is displayed while the key is pressed.

(4) Background color indication [C – R* * G* * B* *]

(5) ① Tracking status [TRKG – *]**

Tracking on	[ON]
Tracking off	[OFF]

② Laser diode current value [LDI – *]**

(6) ① Spindle status [SPDL – * * *]

Spindle accelerator and brake, free-runnimg	[A/B]
FG servo	[FG]
Rough, velocity phase servo	[SRV]
Offset addition, rough, velocity phase servo	[O_S]

② AFB status [AFB – * *]

ON	[ON]
OFF	[OFF]

(7) Mechanism position value [M – *]

Position code	[1] to [3]

(8) Slider position [S – * * * *]

CD TOC area	[IN]
CD active area	[CD]

(9) AGC setting [AGC – * *]

AGC on	[AGC-ON]
AGC off	[AGC-OFF]

(10) Output video system [V – * * * *]

NTSC system	[NTSC]
PAL system	[PAL]
Auto-setting	[AUTO]

Skirt terminal output [SK – * *]

VIDEO	[00]
S-VIDEO	[01]
RGB	[02]

Note : Display only the model which can do the output setting of skirt terminal.

(11) FTS servo IC information

DSP coefficient indication [KS – [* * * *] * * * *]

Displays the address (four digits) of the specified coefficient and the setting value (four digits) with [TEST] and [9] keys.

(12) Error rate indication

①C1 error value of CD	[ER – C1 * * * *]
②C1 error value of DVD	[ER – * * * * * * * *]

(13) Internal operation mode of mechanism controller [MM – * * : * *]

Internal mechanism mode (2 digits) and internal mechanism step (2 digits) of the mechanism controller

(14) ① Disk sensing [DSC – * * *]

The type of discs loaded is displayed.
[DVD], [CD], [VCD], [   ]

② CD 1/3 beam switch [BM – * *]

(15) ① Equalizer value [E – * *]

② Jitter value [J – * *]

Make the jitter four times, and renew it in every one second. [4 – * *]

CD is effective only in the jitter value.

(16) Version of the AV-1 chip [AV : * . * *' *']

(17) ① Version of the FL controller [FL : * * * *]

② Region setting of the player [REG : *]

Setting value [1] to [6]

(18) Destination setting of the FL controller [MDL : * * * * / * * *]

Four charactors in the front represent the type of model : three charactors in the back represent the destination code.
J : /J, K : /KU, /KC, /KU/KC, R : /RAM, /RL, /RD, /LB, WY : /WY

(19) The part number of the flash ROM and system controller [* * * * * * / * * * * * * *]

①Part number of the flash ROM <Front>
(Example) VYW1536-A = W1536A
(Example) PD6256A9 = 6256A9
②Part number of the system controller <Back>
(Example) PD3381T1 = 3381T1

(20) ① Version of the flash ROM [V : * . * * *]

② Flash ROM size [FLSH = *]

(21) Revision of the system controller [S : * . * * * / * . * *]

①Revision number of the external ROM part (flash ROM) of the system controller <Front>
②Revision of the internal ROM part of the system controller <Back>

(22) Revision of the DVD mechanism controller [M : * . * * *]

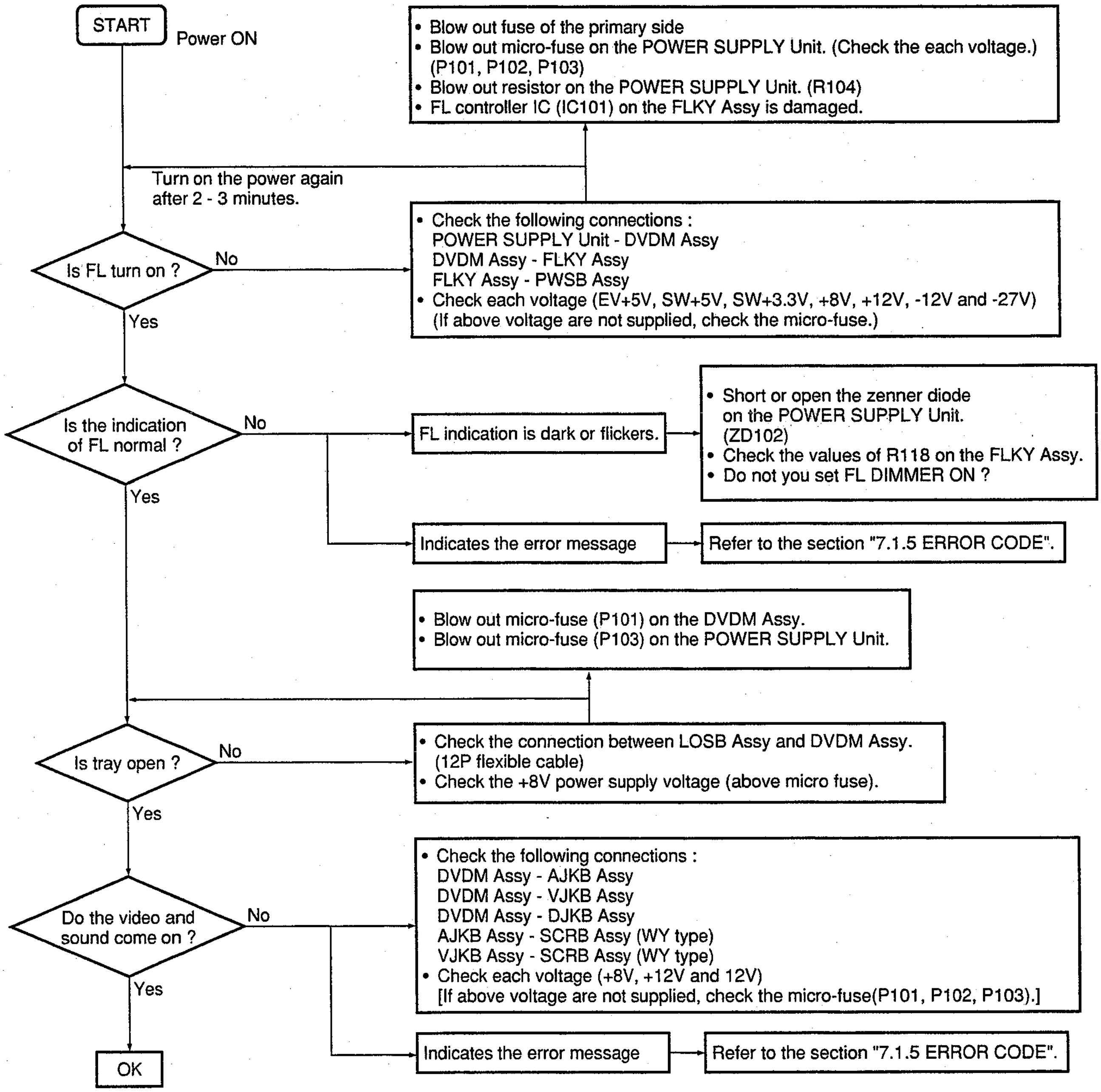
Revision number of the external ROM part (flash ROM) of the DVD mechanism controller

(23) Control and part numbers of the GUI-ROM [GUI : * * * *]

No GUI model displays as "—— / ——".
OEM model displays the part number of GUI-ROM
[GUI : * * * *]

7.1.4 TROUBLE SHOOTING

- No Power ON
- FL is not turned ON
- FL indication is unusual



START
Power ON
Is FL turn on ?
No
Yes
Is the indication of FL normal ?
No
Yes
Is tray open ?
No
Yes
Do the video and sound come on ?
No
Yes
OK

- Blow out fuse of the primary side
- Blow out micro-fuse on the POWER SUPPLY Unit. (Check the each voltage.) (P101, P102, P103)
- Blow out resistor on the POWER SUPPLY Unit. (R104)
- FL controller IC (IC101) on the FLKY Assy is damaged.

Turn on the power again after 2 - 3 minutes.

- Check the following connections :
  POWER SUPPLY Unit - DVDM Assy
  DVDM Assy - FLKY Assy
  FLKY Assy - PWSB Assy
- Check each voltage (EV+5V, SW+5V, SW+3.3V, +8V, +12V, -12V and -27V) (If above voltage are not supplied, check the micro-fuse.)

FL indication is dark or flickers.

- Short or open the zenner diode on the POWER SUPPLY Unit. (ZD102)
- Check the values of R118 on the FLKY Assy.
- Do not you set FL DIMMER ON ?

Indicates the error message

Refer to the section "7.1.5 ERROR CODE".

- Blow out micro-fuse (P101) on the DVDM Assy.
- Blow out micro-fuse (P103) on the POWER SUPPLY Unit.

- Check the connection between LOSB Assy and DVDM Assy. (12P flexible cable)
- Check the +8V power supply voltage (above micro fuse).

- Check the following connections :
  DVDM Assy - AJKB Assy
  DVDM Assy - VJKB Assy
  DVDM Assy - DJKB Assy
  AJKB Assy - SCRB Assy (WY type)
  VJKB Assy - SCRB Assy (WY type)
- Check each voltage (+8V, +12V and 12V) [If above voltage are not supplied, check the micro-fuse(P101, P102, P103).]

Indicates the error message

Refer to the section "7.1.5 ERROR CODE".

7.1.5 ERROR CODE

Error codes that are displayed on the FL display without using the remote control unit

FL Display	Possible causes	Operation of the unit
AV1 VER	AV-1 chip is not a match with the program of system controller	The sound may not out with the specific audio.
CPU AERR	CPU address error (Hardware is unusual.)	No operation
DMA AERR	DMA address error (Hardware is unusual.)	No operation
FLASH ID	Difference in versions of the internal ROM of the system controller and of the flash ROM, or bus line failure or reverse installation	No operation
FLASH WRP	Write protect error of the flash ROM	No operation
FLASH SIG	Difference in part number of the flash ROM (When the ROM which could't be used was used.)	No operation
FLASH SUM	Check sum error of the flash ROM (It exceeds the regular size.) or reverse installation (Hardware is unusual.)	No operation
FLASH SIZE	Size error of the flash ROM (Use 4 or 8 M-bit.)	No operation
ILLGAL	The system controller fetched a code other than an operation code (Hardware is unusual.)	No operation
RESERVE	Undefined interrupt (Hardware is unusual.)	No operation
SLOT	Inappropriate slot command issued (Hardware is unusual.)	No operation

Error codes that are displayed on the FL display by using the remote control unit (Mechanism controller error)

To display: ESC + DISPLAY + DISPLAY; Location of the display: At the two digits of center of the FL display
To display the error history: ESC + DISPLAY + One shot; Location of the display: TV screen

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
11	Search timeout	Search could not be complete within 7 seconds.	Search could not be complete within 7 seconds, and it could not enter the target area within 7 seconds by VCD scan.	CD : Stops, DVD : Continues operation
12	Search retry error	A search could not be completed after 3 retries, search backup was executed 4 times, or in a case of timeout (6 seconds) while the unit was tracing 11 tracks or more beyond the target while the search operation was converging.	Backup against slider skip was executed 4 times during a search, or slider skip twice resulted in starting from the read-in point.	CD : Stops, DVD : Continues operation
19	Tracing timeout while converging	Timeout (10.5 seconds) while tracing at the stage of convergence of a search.		Stop
1B	Index 0 search error		During Track (Index) Search, the search for the beginning of a program could not be completed within 3 seconds (20 seconds in the case of Index Search) after positioning based on the TOC data was completed.	Stop
22	Timeout of slider inner circumference	Inside switch could not ON within 3 seconds.		Stop
23	Timeout of slider outer circumference	Inside switch could not OFF within 2 seconds.		Stop
33	No FOK pulse during playback CLVA	When the focus was deviated continuously 20 times.		Adjusts focus at the innermost circumference and tries to return to its position where the error was generated (for 3 times),then opens. If the same error persists after one retry, the tray opens. (No FOK pulse)
38	Disc-type-sensing error	If normal starting was impossible in the following three cases, disc-type sensing will be retried if other errors occure excepting C5 error. However, when the focus error "33" was occured continuously 3 times, it is finished as "38 error" at the moment: (1) startup with the first disc-type-sensing result, (2) forced startup with another disc by designating the disc type, (3) forced startup with the original disc by designating the disc type.		Open

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the
39	SGC converge timeout	SGC could not converge during detects the peak		Open
41	Spindle timeout	The unit did not enter Stop mode within 10 seconds of issuance of a Stop command.		Stop
48	Spindle FG transition timeout	The spindle could not converge into within ± 12% of the target FG rotation speed within 10 seconds after spindle kick. The first time after startup (the first time after disc distinction), it doesn't become the number of the target rotation within five seconds. The first time after startup, detects the abnormal rotation number of high-speed continuously 3 loops. DVD: 5 to 9 mS , CD: 40 to 60 mS		Stops. (FG timeout)
49	Spindle PLL transition timeout	After the second times after startup, it doesn't become the number of the target rotation within five seconds. Detects the abnormal high-speed or low-speed rotations. DVD: 5 to 9 mS , CD: 40 to 60 mS		Stops. ("73" is displayed during starting process.)
4A	Spindle lock timeout	Spindle could not lock more than 1.5 seconds before start the AFB.		Stops. ("73" is displayed during starting process.)
51	Auto sequence timeout of peak	ABUSY did not return within 1 second after the DDTCT (peak detection) command was sent.		Stop
52	Auto sequence timeout of focus jump down	ABUSY did not return within 30 mS after the FJMPD (Focus jump 1 to 0) command was sent.		Stop
53	Auto sequence timeout of focus	ABUSY did not return within 30 mS after the FJMPU (Focus jump 0 to 1) command was sent.		Stop
54	Auto sequence timeout of play AGC	ABUSY did not return within 50 mS after the GSUMON (play-AGC-measuring) command was sent.		Stop
55	Auto sequence timeout of disc-type-sensing	ABUSY did not return within 2 seconds after the DJSRT (disc-sensing) command was sent.		Stop
56	Auto sequence timeout of ATB2	ABUSY did not return within 1 second after the TBLOFS (Internal ATB after the completion of external ATB) command was sent.		Stop
57	Auto sequence timeout of tracking servo ON	ABUSY did not return within 500 mS after the TSON (tracking servo ON) command was sent.		Stop
58	Auto sequence timeout of ATB1	ABUSY did not return within 200 mS after the TBL (external ATB) command was sent.		Stop
59	Auto sequence timeout of focus gain adjustment	ABUSY did not return within 2 seconds after the FGN (focus gain adjustment) command was sent.		Stop
5A	Auto sequence timeout of tracking gain adjustment	ABUSY did not return within 2 seconds after TGN (tracking gain adjustment) command was sent.		Stop
5B	Auto sequence timeout of offset adjustment	ABUSY did not return within 1 second after the CMDAVE (offset adjustment) command was sent.		Stop
5C	Auto sequence timeout of modulation factor measurement	ABUSY did not return within 200 mS after the ADJMIR (modulation factor measurement) command was sent.		Stop
5D	Auto sequence timeout of auto focus bias	ABUSY did not return within 2 seconds after the AFB (auto focus bias) command was sent.		Stop
5F	Auto sequence already busy	A command could not be sent because ABUSY was low. ABUSY did not return within 200 mS after TLV command was sent.		Stop
62	Pause retry error	Pause mode could not be restored within three retries after it had been released.		Continues operation

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
71	ID can not read during tracing	An ID could not be read for 1 second or more.		Stop
72	Subcode check failure during playback		No frame could be read for 3 seconds or more.	Stop
73	ID can not read at the startup	An ID could not be read within 1 second after the AFB adjustment had been finished.		Opens (ID readout failure)
74	Subcode check failure during startup		No subcode could be read within 3 seconds after AFB adjustment had been finished.	Opens (Subcode readout failure).
81	Timeout for reading TOC of the mechanism controller		TOC readout took 30 seconds or more.	Stop
82	Timeout for reading TOC of the system controller		Reading TOC of the system controller took 30 seconds or more.	Stop
A1	Communication timeout of DSP command	A command could not be issued to DSP because Command Busy (XCBUSY) was in force (XCBUSY = L) for a specified time (about 200 mS).		No operation
A2	Communication timeout for reading DSP coefficient	Command Busy (XCBUSY) was in force for a specified time (about 200 mS) before and after a coefficient read command was issued to DSP, or the address echo-back after command issuance did not match the setup address.		No operation
A3	Communication timeout for writing DSP coefficient	Command Busy (XCBUSY) was in force for a specified time (about 1024 mS) before and after the coefficient write command was issued to DSP.		No operation
A4	Communication timeout for continuously writing DSP coefficient	Command Busy (XCBUSY) was in force for 200 µS during continuous coefficient writing, or before and after a continuous write command was issued to DSP.		No operation
B1	Timeout error for backup	In the tracing state during the backup sequence, codes could not be read for 1 second or more. In the backup sequence, tracking ON sequence of the servo DSP could not be completed even if more than 500 mS after the tracking ON command was issued.		Stops
B2	Retry error for backup	Tracing impossible after retring the tracking ON for 3 times in the backup sequence.		Stops
B3	Retry error for trace	During tracing, runaway was detected after three iterations of backup operations for detecting runaway.		Stops
C3	Detection of tracking overcurrent	During playback, the overcurrent detection port was at L for 300 ms or more continuously.		Stops (the mechanical controller operates independently).
(C5)	Short-circuit test corresponding error	While the power was on, the overcurrent detection port was at L for 40 ms or more continuously.		Turns off the power instantly (No indication on the FL display and no writing to flash memory)
E3	Violation against digital copy guard			Stops
F5	Tray being pushed	The tray switch that had been Open mode was forcibly changed to a mode other than Open by an external force.		Closes
F8	Loading timeout	Loading, unloading or clamping could not be completed within a specified time (about 5 seconds).		Reverses the loading direction. It timeout is repeated upon retry, the unit stops.
FC	Focus	The following error occured eight times. (1) Focus ON sequence could not be completed even if more than two seconds after the focus ON command (to the servo DSP) was sent. (2) Focus IN sequence was finished, actually focus IN was not completed.		Stops wherever possible then opens (stops in the case of side B).

Error codes that are displayed on the FL display by using the remote control unit (Device error)
To display : ESC + DISPLAY + DISPLAY ; Location of the display : At the two digits of left of the FL display

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
bit3=1 08 etc.	AV1 access error (read, write NG)			No operation or it becomes debugging indication if the power is able to ON.
bit2=1 04 etc.	MY CHIP access error			
bit1=1 01 etc.	SRAM access error			

7.1.6 DISASSEMBLY

■ Traverse Mechanism Assy

① Remove the Side Wood L and R. (Screws × 4)
(KU/CA Type Only)

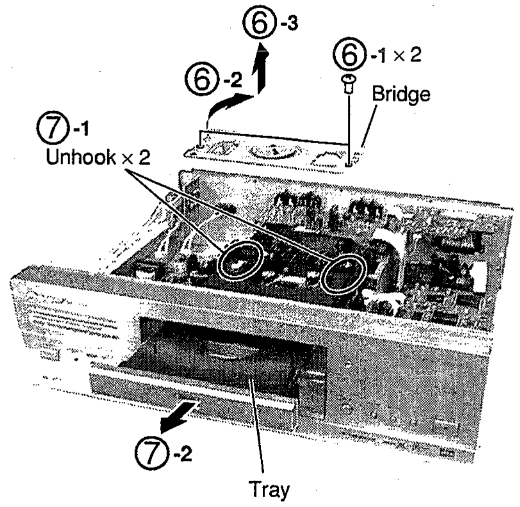
② Remove the Bonnet. (Screws × 7)

③ POWER ON ⇨ ④ Tray Open

⑤ Power OFF. (Pull out the Power Cord from outlet.)

⑥ Remove the Bridge.

⑦ Remove the Tray.

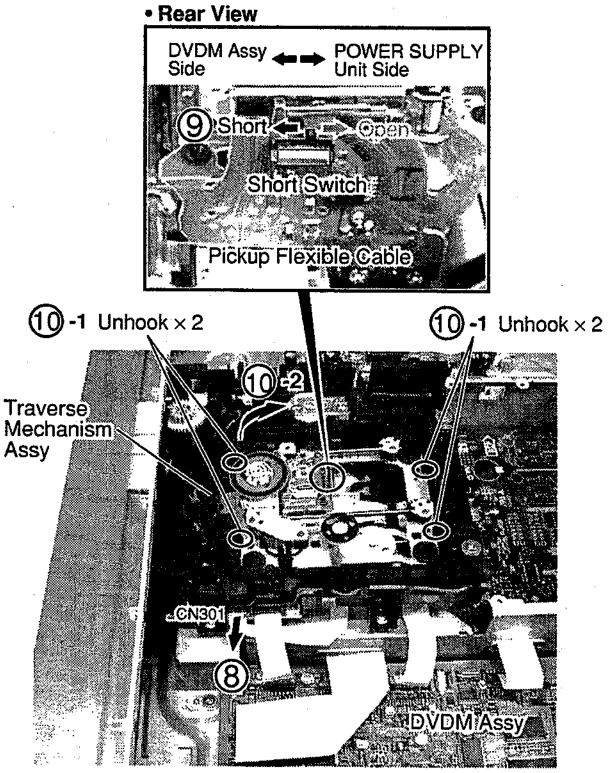

⑥-3
⑥-2
⑥-1 × 2
Bridge
⑦-1
Unhook × 2
⑦-2
Tray

⬇

⑧ Remove the Flexible Cable (12P).
(LOSB CN301 ↔ DVDM CN512)

⑨ Short the Short Switch.

⑩ Lift-up the Traverse Mechanism Assy.

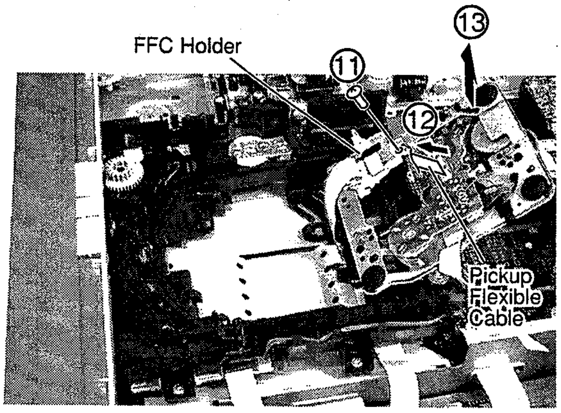

• Rear View
DVDM Assy Side
POWER SUPPLY Unit Side
⑨ Short
Open
Short Switch
Pickup Flexible Cable
⑩-1 Unhook × 2
⑩-1 Unhook × 2
⑩-2
Traverse Mechanism Assy
CN301
⑧
DVDM Assy

⬇

⑪ Remove the FFC Holder

⑫ Remove the Pickup Flexible Cable

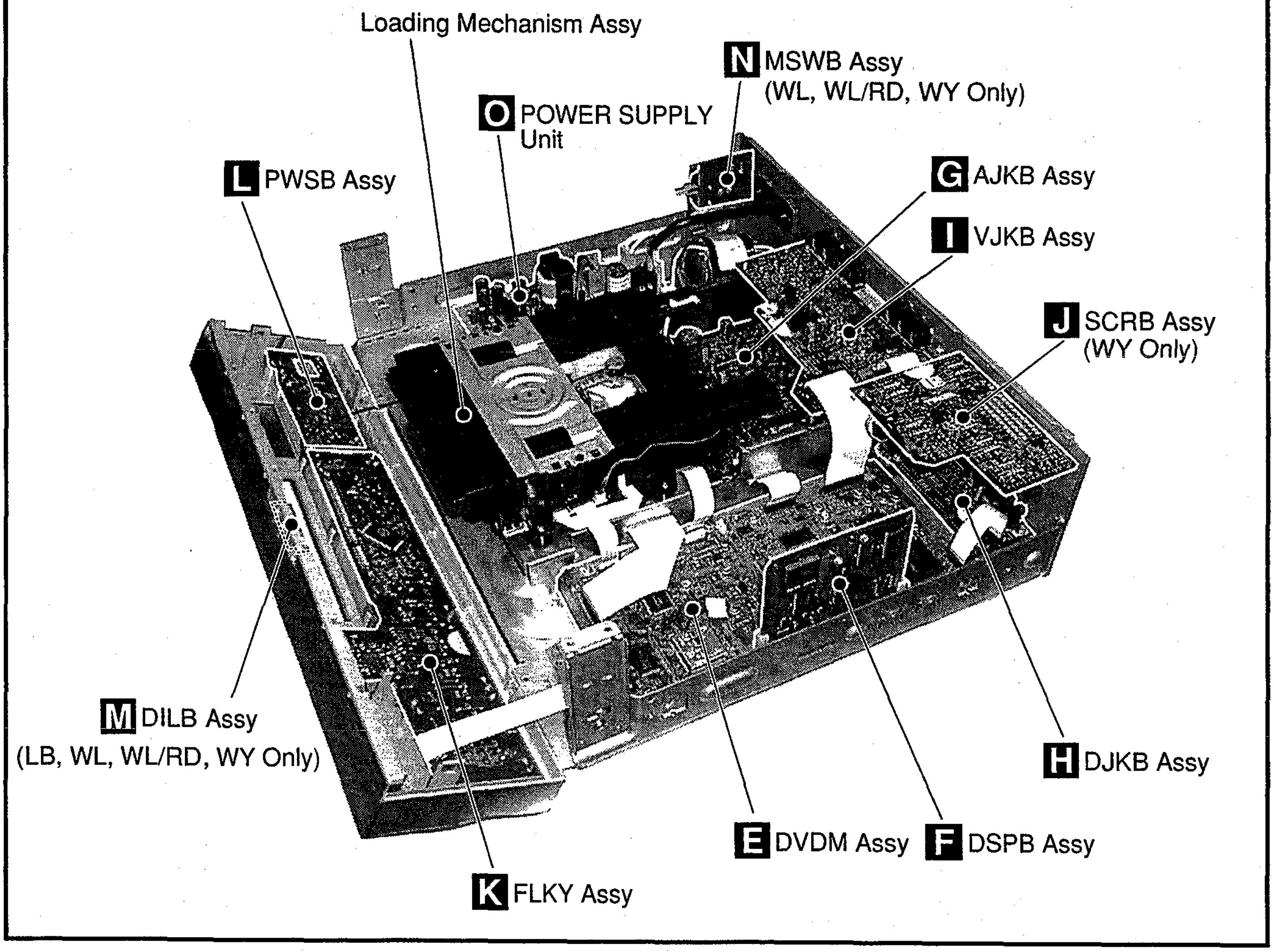
⑬ Remove the Traverse Mechanism Assy


⑬
FFC Holder
⑪
⑫
Pickup Flexible Cable

⬇

Diagnosis or Exchange

■ PCB Location


Loading Mechanism Assy
N MSWB Assy
(WL, WL/RD, WY Only)
O POWER SUPPLY Unit
L PWSB Assy
G AJKB Assy
I VJKB Assy
J SCRB Assy
(WY Only)
M DILB Assy
(LB, WL, WL/RD, WY Only)
H DJKB Assy
E DVDM Assy
F DSPB Assy
K FLKY Assy

7.2 IC

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

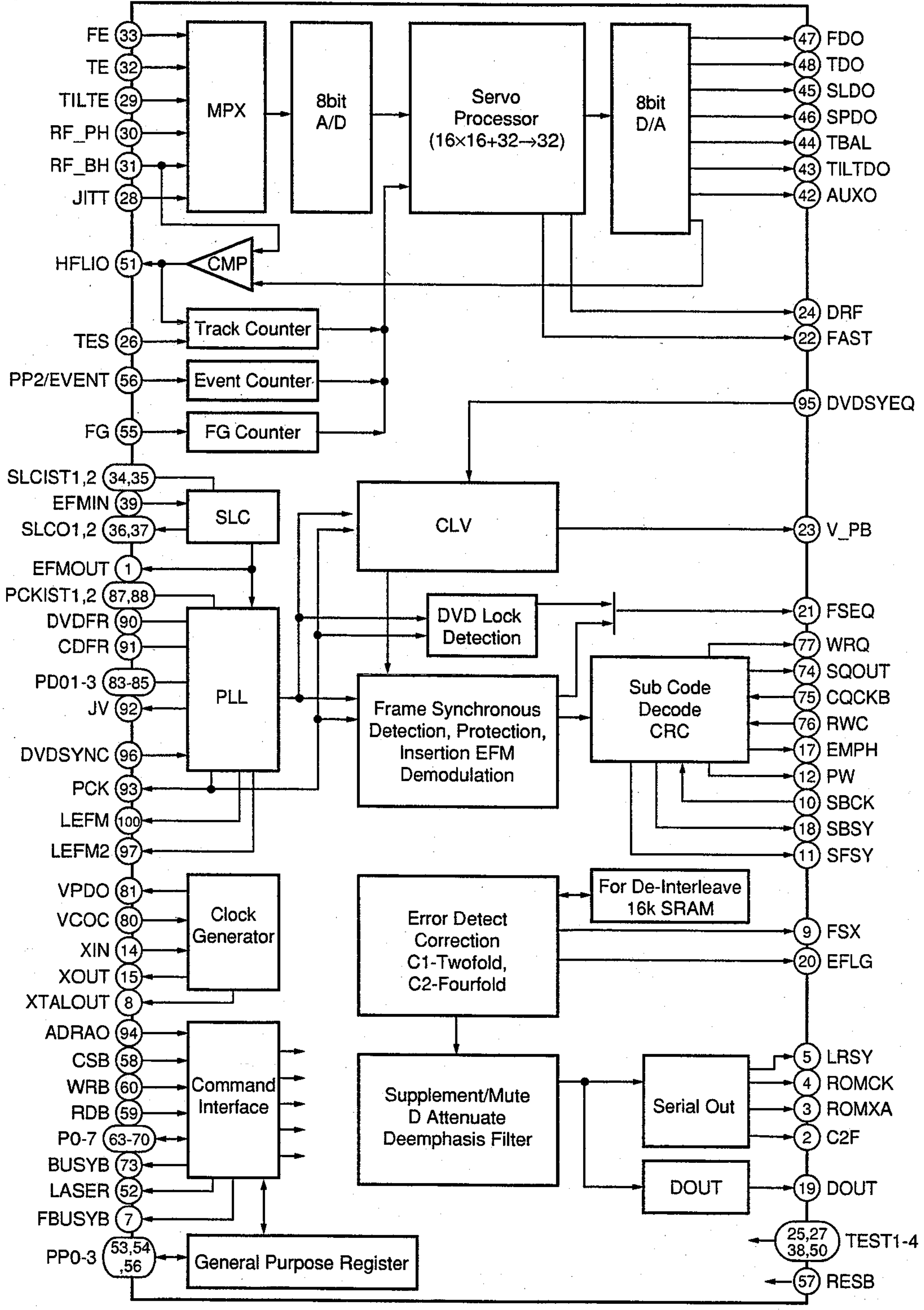
•List of IC

LC78652W, PD3410A, PM0024AF, PE5185A

■ LC78652W (DVDM ASSY : IC201)

- **Servo DSP IC**

• Block Diagram


FE 33
TE 32
TILTE 29
RF_PH 30
RF_BH 31
JITT 28
HFLIO 51
TES 26
PP2/EVENT 56
FG 55
SLCIST1,2 34,35
EFMIN 39
SLCO1,2 36,37
EFMOUT 1
PCKIST1,2 87,88
DVDFR 90
CDFR 91
PD01-3 83-85
JV 92
DVDSYNC 96
PCK 93
LEFM 100
LEFM2 97
VPDO 81
VCOC 80
XIN 14
XOUT 15
XTALOUT 8
ADRAO 94
CSB 58
WRB 60
RDB 59
P0-7 63-70
BUSYB 73
LASER 52
FBUSYB 7
PP0-3 53,54,56
MPX
8bit A/D
Servo Processor (16×16+32→32)
8bit D/A
CMP
Track Counter
Event Counter
FG Counter
SLC
CLV
PLL
DVD Lock Detection
Frame Synchronous Detection, Protection, Insertion EFM Demodulation
Sub Code Decode CRC
Clock Generator
Error Detect Correction C1-Twofold, C2-Fourfold
For De-Interleave 16k SRAM
Command Interface
Supplement/Mute D Attenuate Deemphasis Filter
Serial Out
DOUT
General Purpose Register
47 FDO
48 TDO
45 SLDO
46 SPDO
44 TBAL
43 TILTDO
42 AUXO
24 DRF
22 FAST
95 DVDSYEQ
23 V_PB
21 FSEQ
77 WRQ
74 SQOUT
75 CQCKB
76 RWC
17 EMPH
12 PW
10 SBCK
18 SBSY
11 SFSY
9 FSX
20 EFLG
5 LRSY
4 ROMCK
3 ROMXA
2 C2F
19 DOUT
25,27 38,50 TEST1-4
57 RESB

•Pin Function

No.	Pin Name	I/O	Function
1	EFMOUT	O	Output the state that was binary-stated value EFM
2	C2F	O	C2 flag output
3	ROMXA	O	CD-ROM data output
4	ROMCK	O	Shift clock output for CD-ROM data output
5	LRSY	O	L/R clock output for CD-ROM data output
6	PP3	I/O	General-purpose port input/output / DVD sync. signal input N ch-OD output
7	FBUSYB	O	Busy signal output of DSP process operation N ch-OD output
8	XTALOUT	O	External system clock output
9	FSX	O	CD 1 frame sync. signal output
10	SBCK	I	Subcode reading out clock input
11	SFSY	O	Frame sync. signal output of subcode
12	PW	O	Subcode P, Q, R, S, T, U, V and W output
13	VSS	–	GND pin
14	XIN	I	Connect a crystal resonator (16.9344MHz)
15	XOUT	O	Connect a crystal resonator
16	DVDD1	–	3.3V power supply of the oscillation circuit
17	EMPH	O	Monitor pin of the deemphasis
18	SBSY	O	Sync. signal output of the subcode block
19	DOUT	O	Audio EIAJ data output
20	EFLG	O	Error correction state monitor of the error correction C1 and C2
21	FSEQ	O	Detection monitor of the CD/DVD frame sync. signal
22	FAST	O	Playback speed monitor N ch-OD output
23	V_PB	O	Monitor output of the rough servo/CLV control
24	DRF	O	In focus monitor
25	TEST3	I	Test input 3
26	TES	I	Tracking error signal input
27	TEST2	I	Test input 2
28	JITT	I	Jitter quantity detecting signal input of EFM PLL
29	TILTE	I	Tilt error signal input
30	RF_PH	I	RF peak hold signal input
31	RF_BH	I	RF bottom hold signal input
32	TE	I	Tracking error signal input
33	FE	I	Focus error signal input
34	SLCIST1	–	Current setting pin 1 of the constant current charge pump for SLC
35	SLCIST2	–	Current setting pin 2 of the constant current charge pump for SLC
36	SLCO1	O	Control output 1 for SLC
37	SLCO2	O	Control output 2 for SLC
38	TEST1	I	Test input 1
39	EFMIN	I	EFM/EFM + input
40	AVDD	–	5V power supply of A/D and D/A for servo
41	AVSS	–	GND of A/D and D/A for servo
42	AUXO	O	DA auxiliary output
43	TILTDO	O	Tilt control signal output
44	TBAL	O	Tracking balance control signal output
45	SLDO	O	Sled control signal output
46	SPDO	O	Spindle control signal output
47	FDO	O	Focus control signal output
48	TDO	O	Tracking control signal output
49	VREF	–	Reference level of D/A for servo
50	TEST4	I	Test input 4

No.	Pin Name	I/O	Pin Function
51	HFLIO	I/O	Mirror detection signal input/output
52	LASER	O	Output pin for laser ON/OFF control
53	PP0/DVD_CDB	I/O	General-purpose port input/output / Disc discrimination signal output
54	PP1/CRCERRB	I/O	General-purpose port input/output / Subcode CRC result signal output
55	FG	I	FG counter input
56	PP2/EVENT	I/O	General-purpose port input/output / Event counter input
57	RESB	I	Reset input
58	CSB	I	Chip select input
59	RDB	I	Internal state reading signal input
60	WRB	I	Command / data writing signal input
61	DVDD2	–	5V power supply
62	VSS	–	GND
63	P0	I/O	Command / data input/output
64	P1		
65	P2		
66	P3		
67	P4		
68	P5		
69	P6		
70	P7		
71	VSS	–	GND
72	DVDD1	–	3.3V power supply for internal
73	BUSYB	O	Busy signal output of command process
74	SQOUT	O	Serial output of subcode Q
75	CQCKB	I	Shift clock input for subcode Q data output
76	RWC	I	Update permission input of subcode Q
77	WRQ	O	Read out ready monitor of subcode Q
78	AVSS	–	PLL GND for internal system clock
79	VRPFR	–	VCO oscillation range setting of PLL for system clock
80	VCOC	I	Connect a PLL filter for system clock
81	VPDO	O	
82	AVDD	–	PLL 5V power supply for system clock
83	PDO1	I/O	PLL filter connection pin 1 for EFM playback
84	PDO2	I/O	PLL filter connection pin 2 for EFM playback
85	PDO3	I/O	PLL filter connection pin 3 for EFM playback
86	AVSS	–	PLL GND for EFM playback
87	PCKIST1	–	Current setting 1 of PLL constant current charge pump for EFM playback
88	PCKIST2	–	Current setting 2 of PLL constant current charge pump for EFM playback
89	AVDD	–	PLL 5V power supply for EFM playback
90	DVDFR	–	VCO oscillation range setting of PLL for EFM playback 1
91	CDFR	–	VCO oscillation range setting of PLL for EFM playback 2
92	JV	O	Jitter output of PLL clock for EFM playback
93	PCK	O	Bit clock output for EFM playback
94	ADRAO	I	Address input
95	DVDSYEQ	I	DVD synchronize pulse input
96	DVDSYNC	I	DVD synchronous signal input
97	LEFM2	O	Output the state that cut and out a signal which was binary-stated value EFM with PCK 2
98	DVDD1	–	3.3V power supply for I/O
99	VSS	–	GND
100	LEFM	O	Output the state that cut and out a signal which was binary-stated value EFM with PCK 1

■ PD3410A (DVDM ASSY : IC601)

• System Control IC

• Pin Function

No.	Mark	Pin Name	I/O	Function
1	XCS3/XCASL	XCS3	O	PE5108A (BY CHIP) chip select signal output
2	GND	GND	–	GND
3	CK	HCPUCK	O	N.C.
4	VCC	V+3D	–	V+3D
5	PICLK	–	I/O	N.C.
6	PIDATA	–	I/O	N.C.
7	GND	GND	–	GND
8	PORTH0	–	O	N.C.
9	PORTH1	–	O	N.C.
10	PORTH2	36MVH	O	Clock generator
11	PORTH3	V_SEL2	O	Composite/S switching signal output of the skirt terminal [WY model]
12	VCC	V+3D	–	V+3D
13	PORTH4	–	O	N.C.
14	PORTH5	–	O	N.C.
15	PORTH6	–	O	N.C.
16	PORTH7	–	O	N.C.
17	GND	GND	–	GND
18	EXTAL	EXTAL	I	Connect a ceramic resonator
19	XTAL	XTAL	O	
20	VCC	V+3D	–	V+3D
21	PORTG0	XCSDF0	O	DAC chip select signal output (←XLAT3)
22	PORTG1	–	O	N.C.
23	PORTG2	–	O	N.C.
24	PORTG3	–	O	N.C.
25	PORTG4	–	O	N.C.
26	GND	GND	–	GND
27	PORTG5	–	O	N.C.
28	PORTG6	–	O	N.C.
29	PORTG7	XAMUTE	O	Last stage mute signal output of the audio
30	PORTF0	44X48	O	DAC 44/48 FS switching signal output
31	PORTF1	–	I	N.C.
32	PORTF2	3DON	O	3D audio ON/bypass switching signal output
33	VCC	V+3D	–	V+3D
34	PORTF3	XCSADSP0	I	CD deck synchronous input
35	PORTF4	XAVSRST	O	Sync. reset port
36	PORTF5	–	O	N.C.

No.	Mark	Pin Name	I/O	Function
37	PORTF6	–	O	N.C.
38	PORTF7	XCSVE	O	Serial communication enable signal output of the video encoder [WY model]
39	GND	GND	–	GND
40	AVSS	GND	–	GND
41	AVCC	V+3D	–	V+3D
42	OUTA_P	LODRV	O	Loading drive output
43	VREF	V+3D	–	V+3D
44	OUTB_P	TEI	O	Tracking offset signal output
45	AVSS	GND	–	GND
46	AVSS	GND	–	GND
47	PORTE0	V_SEL	O	Component/composite switching signal output
48	PORTE1	–	I	N.C.
49	PORTE2	–	I	N.C.
50	PORTE3	FOFST1	I/O	Focus offset adjustment output 1
51	PORTE4	FOFST2	I/O	Focus offset adjustment output 2
52	PORTE5	XDFINH	I/O	Defect shunt signal output
53	PORTE6	DVD/XCD	O	DVD/CD switching signal output
54	PORTE7	LD1_ON	O	650 nm laser diode ON signal output
55	PORTD0	LD2_ON	O	780 nm laser diode ON signal output
56	VCC	V+3D	–	V+3D
57	PORTD1	DPD/TE	O	1 beam/3 beams switching signal output
58	PORTD2	AGOFF	O	AGC ON/OFF switching signal output of RF IC
59	PORTD3	XCD2X	O	Signal output for switching the double speed playback (VCD)
60	PORTD4	OEICG	O	OEIC gain switching signal output
61	GND	GND	–	GND
62	PORTD5	XMON	O	ON/OFF switching signal output of the spindle motor control output
63	PORTD6	–	O	N.C.
64	PORTD7	–	I	N.C.
65	PORTJ0	XDRVMUT	O	Driver mute output
66	PORTJ1	–	O	N.C.
67	PORTJ2	XDSPRST	O	Servo DSP reset
68	PORTJ3	–	I	N.C.
69	VCC	V+3D	–	V+3D
70	PORTJ4	TM_ENT	I	Test mode entry
71	PORTJ5	–	O	N.C.
72	PORTJ6	VSEL_SW	I	Component/composite SW input
73	PORTJ7	–	I	N.C.
74	PB0/TIOCA2	XCBUSY	I	Command busy input
75	PB1/TIOCB2	XABUSY	I	Auto-sequence busy input
76	PB2/TIOCA3	XINT2	I	Interrupt input 2 (AV-1)
77	VCC	V+3D	–	V+3D
78	PB3/TIOCB3	LT1	O	Communication response signal output to the FL controller
79	PB4/TIOCA4	SBSY	I	Subcode block sync. input
80	XMTEST	–	I	Test terminal (V+3D)
81	XCPUMD	–	I	Test terminal (V+3D)
82	XRES	XRESET	I	Reset input

No.	Mark	Pin Name	I/O	Function
83	GND	GND	–	GND
84	AN0	LODPOS	I	Loading position input
85	AN1	SLDPOS	I	Slider position input
86	AN2	–	I	N.C.
87	AN3	NAP_SW	I	NTSC/AUTO/PAL SW input
88	AN4	XOEM	I	Input terminal of OEM model protection
89	AN5	LDDEAD	I	Input for LD current value display
90	AN6	–	I	N.C.
91	AN7	–	I	N.C.
92	Avref	V+3D	–	V+3D
93	AVCC	V+3D	–	V+3D
94	AVSS	GND	–	GND
95	PB5/TIOCB4	–	I	N.C.
96	PB6/TIOCXA4/TCLKC	C2F	I	C2 error input
97	PB7/TIOCXB4/TCLKD	XRDY	I	Communication request input from the FL controller
98	PB8/RxD0	SSI	I	Serial data input (FL controller)
99	PB9/TxD0	SSO	O	Serial data output (FL controller)
100	VCC	V+3D	–	V+3D
101	PB10/RxD1	RXD	I	Data input of the RS-232C
102	PB11/TxD1	TXD	O	Data output of the RS-232C
103	PB12/XIRQ4/SCK0	SSCK	I/O	Serial clock output (FL controller)
104	PB13/XIRQ5/SCK1	XIRQL10	I	Interrupt input #0 (BY CHIP)
105	GND	GND	–	GND
106	PB14/XIRQ6	XIRQL11	I	Interrupt input #1 (BY CHIP)
107	PB15/XIRQ7	XINT0	I	Interrupt input #0 (AV-1)
108	PA0/XCS4/TIOCA0	XCS4	O	Servo DSP chip select signal output
109	PA1/XCS5/XRAS	–	O	N.C.
110	PA2/XCS6/TIOCB0	XCS6	O	AV-1 chip select signal output
111	XWAIT	XWAIT	I	Wait signal input
112	XWRL	XWRL	O	Write pulse output L
113	GND	GND	–	GND
114	XWRH	XWRH	O	Write pulse output H
115	XRD	XRD	O	Read pulse output
116	PA7/XBACK	XCURDET	I	Over-current detection signal input
117	PA8/XBREQ	CTS	I	RS-232C transfer permit input
118	PA9/XAH/XIRQOUT/ XADTRG	DTR	O	RS-232C transfer permit output
119	PA10/DPL/TIOCA1	XINT1	I	Interrupt input 1 (AV-1)
120	PA11/DPH/TIOCB1	THLD	I	Tracking hold signal input
121	VCC	V+3D	–	V+3D
122	PA12/XIRQ0/DACK0/ TCLKA	DACK0	O	DMA response output (BY CHIP)
123	PA13/XIRQ1/ XDREQ0/TCLKB	XDREQ0	I	DMA request input (BY CHIP)
124	PA14/XIRQ2/XDACK1	XDACK1	O	DMA response output (AV-1)
125	PA15/XIRQ3/XDREQ1	XDREQ1	I	DMA request input (AV-1)
126	AD0	D0	I/O	Data bus 0

No.	Mark	Pin Name	I/O	Function
127	GND	GND	–	GND
128	AD1	D1	I/O	Data bus 1
129	AD2	D2	I/O	Data bus 2
130	AD3	D3	I/O	Data bus 3
131	AD4	D4	I/O	Data bus 4
132	AD5	D5	I/O	Data bus 5
133	AD6	D6	I/O	Data bus 6
134	VCC	V+3D	–	V+3D
135	AD7	D7	I/O	Data bus 7
136	AD8	D8	I/O	Data bus 8
137	AD9	D9	I/O	Data bus 9
138	AD10	D10	I/O	Data bus 10
139	GND	GND	–	GND
140	AD11	D11	I/O	Data bus 11
141	AD12	D12	I/O	Data bus 12
142	AD13	D13	I/O	Data bus 13
143	AD14	D14	I/O	Data bus 14
144	VCC	V+3D	–	V+3D
145	AD15	D15	I/O	Data bus 15
146	A0 (XHBS)	A0	O	Address bus 0
147	A1	A1	O	Address bus 1
148	A2	A2	O	Address bus 2
149	GND	GND	–	GND
150	A3	A3	O	Address bus 3
151	A4	A4	O	Address bus 4
152	A5	A5	O	Address bus 5
153	A6	A6	O	Address bus 6
154	A7	A7	O	Address bus 7
155	A8	A8	O	Address bus 8
156	A9	A9	O	Address bus 9
157	A10	A10	O	Address bus 10
158	A11	A11	O	Address bus 11
159	A12	A12	O	Address bus 12
160	A13	A13	O	Address bus 13
161	A14	A14	O	Address bus 14
162	A15	A15	O	Address bus 15
163	A16	A16	O	Address bus 16
164	A17	A17	O	Address bus 17
165	VCC	V+3D	–	V+3D
166	A18	A18	O	Address bus 18
167	A19	A19	O	Address bus 19
168	A20	A20	O	Address bus 20
169	A21	A21	O	N.C.
170	XNMI	XNMI	I	V+3D
171	GND	GND	–	GND
172	XCS10	–	O	N.C.
173	XCS20	XCS20	O	Chip select signal output of the flash ROM
174	XCS22	–	O	Chip select signal output of the GUI ROM [OEM model]
175	XCS23	XCS23	O	Chip select signal output of the SRAM
176	XCS2	–	O	N.C.

■ PM0024AF (DVDM ASSY : IC1001)

- **Video Encoder IC**

● Pin Function

No.	Pin Name	I/O	Pin Function
1	GND_00	–	Ground Connect to reference voltage (0V).
2	CLK27I	I	External clock (27MHz) input
3	VDD_00	–	Power supply Connect to 3.3V.
4	T_03	I	Test mode cntrol input Connect to GND.
5	T_04		
6	T_05		
7	T_06		
8	T_07		
9	TEST_1	I	Test mode cntrol input Connect to GND.
10	XVSYNC	I/O	Vertical sync. signal input Outputs at Master mode and inputs at Slave mode (set with the register). Negative polarity
11	XHSYNC	I/O	Horizontal sync. signal input Outputs at Master mode and inputs at Slave mode (set with the register). Negative polarity
12	VCC_S00	–	Power supply Connect to 3.3V.
13	GND_S00	–	Ground Connect to reference voltage (0V).
14	XIN	I	Connect a crystal resonator (27MHz)
15	XOUT	O	Connect a crystal resonator (27MHz)
16	GND_01	–	Ground Connect to reference voltage (0V).
17	VI_0	I	(LSB) Video data input
18	VI_1		
19	VI_2		
20	VI_3		
21	VI_4		
22	VI_5		
23	VI_6		
24	VI_7		(MSB)
25	T_08	I	Test mode cntrol input Connect to GND.
26	GND_S01	–	Ground Connect to reference voltage (0V).
27	T_09	I	Test mode cntrol input Connect to GND.
28	T_10		
29	VDD_01	–	Power supply Connect to 3.3V.
30	OSDCK	O	Signal output for external OSD
31	OSDHSYB	O	Horizontal sync. signal output for external OSD Negative polarity
32	OSDVSYB	O	Vertical sync. signal output for external OSD Negative polarity
33	GND_02	–	Ground Connect to reference voltage (0V).
34	CTA_0	I	OSD data input
35	CTA_1		
36	CTA_2		
37	SG16M	I	SGRAM capacity change input terminal
38	BLD_0	I	OSD blend control input
39	BLD_1		
40	VCC_S01	–	Power supply Connect to 3.3V.
41	GND_S02	–	Ground Connect to reference voltage (0V).
42	RMO_0	O	Register monitor output (SPR[0])
43	RMO_1		Register monitor output (SPR[1])
44	RMO_2		Register monitor output (SPR[2])
45	RMO_3		Register monitor output (SPR[3])
46	RMO_4		Register monitor output (SPR[4])
47	GND_AGB0	–	Ground for Guard band Connect to reference voltage (0V).
48	VDD_DAC2	–	Power supply for DAC2 Connect to 3.3V.
49	GND_DAC1	–	Ground for DAC1 Connect to reference voltage (0V).
50	DAOUT1	O	DAC1 output

No.	Pin Name	I/O	Pin Function
51	VDD_DAC2	–	Power supply for DAC2 Connect to 3.3V.
52	GND_DAC2	–	Ground for DAC1 Connect to reference voltage (0V).
53	DAOUT2	O	DAC2 output
54	VDD_DAC3	–	Power supply for DAC3 Connect to 3.3V.
55	DAOUT3	O	DAC3 output
56	GND_DAC3	–	Ground for DAC3 Connect to reference voltage (0V).
57	REXT	–	Connect a reference resistor Connect a 3.1 (3.0) kΩ resistor to GND.
58	CBL	–	Connect a by-pass capacitor Connect a 0.1μF capacitor to GND.
59	CBU	–	Connect a phase compensation capacitor
60	GND_AGB1	–	Ground for Guard Band Connect to reference voltage (0V).
61	RMO_5	O	Register monitor output (SPR[5])
62	RMO_6		Register monitor output
63	RMO_7		Register monitor output
64	VCC_S02	–	Power supply Connect to 3.3V.
65	GND_S03	–	Ground for DAC1 Connect to reference voltage (0V).
66	T_11	I	Test mode cntrol input Connect to GND.
67	T_12		
68	T_13		
69	T_14		
70	T_15		
71	VSY01	O	Vertical sync. analog signal output Negative polarity
72	HSY01	O	Horizontal sync. analog signal output Negative polarity
73	CSY01	O	Compound sync. analog signal output Negative polarity
74	CLMP1	O	Clamp. analog signal output
75	CLMP2	O	Clamp. digital signal output
76	VDD_02	–	Power supply Connect to 3.3V.
77	VSY02	O	Vertical sync. digital signal output Negative polarity
78	GND_S04	–	Ground Connect to reference voltage (0V).
79	HSY02	O	Horizontal sync. digital signal output Negative polarity
80	CSY02	O	Vertical sync. digital signal output Negative polarity
81	V01_0	O	(LSB) Video data1 output
82	V01_1		
83	V01_2		
84	V01_3		
85	V01_4		
86	GND_03	–	Ground Connect to reference voltage (0V).
87	V01_5	O	Video data1 output (MSB)
88	V01_6		
89	V01_7		
90	V01_8		
91	V01_9		
92	VCC_S03	–	Power supply Connect to 3.3V.
93	GND_S05	–	Ground Connect to reference voltage (0V).
94	V02_0	O	(LSB) Video data2 output
95	V02_1		
96	V02_2		
97	V02_3		
98	V02_4		
99	GND_04	–	Ground Connect to reference voltage (0V).
100	V02_5	O	Video data2 output

No.	Pin Name	I/O	Pin Function
101	V02_6	O	Video data2 output
102	V02_7		
103	V02_8		
104	V02_9		(MSB)
105	VDD_03	–	Power supply Connect to 3.3V.
106	GND_05	–	Ground Connect to reference voltage (0V).
107	V03_0	O	(LSB)
108	V03_1		Video data3 output
109	V03_2		
110	V03_3		
111	V03_4		
112	GND_06	–	Ground Connect to reference voltage (0V).
113	V03_5	O	Video data3 output
114	V03_6		
115	V03_7		
116	VCC_S04	–	Power supply Connect to 3.3V.
117	GND_S06	–	Ground Connect to reference voltage (0V).
118	V03_8	O	Video data3 output
119	V03_9		(MSB)
120	CLK270	O	External clock (27MHz) output
121	GND_07	–	Ground Connect to reference voltage (0V).
122	GND_08	–	Ground Connect to reference voltage (0V).
123	GND_PLL0	–	Ground for PLL Connect to reference voltage (0V).
124	VDD_PLL0	–	Power supply for PLL Connect to 3.3V.
125	GND_PLL1	–	Ground for PLL Connect to reference voltage (0V).
126	VDD_PLL1	–	Power supply for PLL Connect to 3.3V.
127	RFCLK	–	Test terminal for PLL Connect to GND or VCC (3.3V).
128	TM2	–	Test terminal for PLL Connect to GND.
129	GND_09	–	Ground Connect to reference voltage (0V).
130	GND_S07	–	Ground Connect to reference voltage (0V).
131	T	I	Test pin for test mode Connect to 3.3V.
132	W	I	Test pin for writing control Connect to 3.3V.
133	VDD_04	–	Power supply Connect to 3.3V.
134	GND_10	–	Ground Connect to reference voltage (0V).
135	MCLKO	O	Clock (54MHz) output for SGRAM
136	MCLKI	I	Clock (54MHz) return for SGRAM
137	GND_12	–	Ground Connect to reference voltage (0V).
138	MADR_8	O	Address output for SGRAM
139	GND_13	–	Ground Connect to reference voltage (0V).
140	VDD_05	–	Power supply Connect to 3.3V.
141	MADR_7	O	Address output for SGRAM
142	MADR_6		
143	MADR_5		
144	VCC_S05	–	Power supply Connect to 3.3V.
145	GND_S08	–	Ground Connect to reference voltage (0V).
146	MADR_4	O	Address output for SGRAM
147	MADR_3		
148	MADR_2		
149	MADR_1		
150	MADR_0		(LSB)

No.	Pin Name	I/O	Pin Function
151	MADR_9	O	Address output for SGRAM
152	GND_14	–	Ground Connect to reference voltage (0V).
153	MRASB	O	RAS output for SGRAM
154	MCASB	O	CAS output for SGRAM
155	MWEB	O	Writing control output for SGRAM
156	VDD_06	–	Power supply Connect to 3.3V.
157	GND_15	–	Ground Connect to reference voltage (0V).
158	MDQ_08	I/O	Data input and output for SGRAM with pull-up
159	MDQ_23		
160	MDQ_09		
161	MDQ_22		
162	GND_16	–	Ground Connect to reference voltage (0V).
163	MDQ_10	I/O	Data input and output for SGRAM with pull-up
164	MDQ_21		
165	MDQ_11		
166	MDQ_20		
167	MDQ_12		
168	VCC_S06	–	Power supply Connect to 3.3V.
169	GND_S09	–	Ground Connect to reference voltage (0V).
170	MDQ_19	I/O	Data input and output for SGRAM with pull-up
171	MDQ_13		
172	MDQ_18		
173	MDQ_14		
174	GND_17	–	Ground Connect to reference voltage (0V).
175	MDQ_17	I/O	Data input and output for SGRAM with pull-up
176	MDQ_15		
177	MDQ_16		
178	MDQ_24		
179	MDQ_07		
180	MDQ_25		
181	VDD_07	–	Power supply Connect to 3.3V.
182	GND_S10	–	Ground Connect to reference voltage (0V).
183	MDQ_06	I/O	Data input and output for SGRAM with pull-up
184	MDQ_26		
185	MDQ_05		
186	MDQ_27		
187	MDQ_04		
188	GND_18	–	Ground Connect to reference voltage (0V).
189	MDQ_28	I/O	Data input and output for SGRAM with pull-up
190	MDQ_03		
191	MDQ_29		
192	MDQ_02		
193	MDQ_30		
194	MDQ_01		
195	MDQ_31		(MSB)
196	VCC_S07	–	Power supply Connect to 3.3V.
197	GND_S11	–	Ground Connect to reference voltage (0V).
198	MDQ_00	I/O	Data input and output for SGRAM with pull-up (LSB)
199	TEST_0	I	Test mode cntrol input Connect to GND.
200	T_00	I	Test mode cntrol input Connect to GND.

No.	Pin Name	I/O	Pin Function
201	GND_19	–	Ground Connect to reference voltage (0V).
202	T_01	I	Test mode cntrol input Connect to GND.
203	T_02		
204	SGLOCK	O	SSG lock output
205	SRN	I	System reset input L: reset Schmitt input
206	SCLK	I	Serial clock input for microcomputer interface Lead in SDATA at rising edge. Schmitt input
207	SDATA	I	Serial data input for microcomputer interface Schmitt input
208	CSB	I	Chip select input for microcomputer interface L: select Schmitt input

■ PE5185A (FLKY ASSY : IC101)

• FL Control IC

● Pin Function

No.	Mark	Pin Name	I/O	Function	Active
1	P94	G7	O	FL timing output	H: ON
2	P93	G6			
3	P92	G5			
4	P91	G4			
5	P90	G3			
6	P81	G2			
7	P80	G1			
8	VDD	(5V)	–	–	
9	P27	FLSET1	I	FL tube setting	
10	P26	FLSET2			
11	P25	KEYSET	I	Key division number setting	
12	P24	(NC)	O	–	
13	P23	XREADY	O	Communication handshaking line with system control IC	L: Communication permission
14	P22	SCK	I/O	Communication clock output with system control IC	
15	P21	SO	I/O	Communication data output with system control IC	
16	P20	SI	I	Communication data input with system control IC	
17	RESET	RESET IN	I	Reset input	L: Reset
18	P74	(NC)	O	–	
19	P73				
20	AVSS	(GND)	–	–	
21	P17	(GND)	I	(Not used)	
22	P16	(GND)			
23	P15	–	I	–	
24	P14	KIN2	I	Key input	
25	P13	KIN1			
26	P12	KIN0			
27	P11	MS1	I	Inducing distinction input	
28	P10	MS0	I	Model distinction input	
29	AVDD	(5V)	–	–	
30	AVREF	(5V)	–	–	
31	P04	(GND)	I	(Not used)	
32	XT2	(NC)	–	–	
33	VSS	(GND)	–	–	
34	X1	X1	I	Microcomputer clock connection	
35	X2	X2	–		
36	P37	(NC)	O	–	
37	P36				
38	P35				
39	P34	NORMAL/KARA	I	Microphone existence detection [RAM model]	H: Microphone having
40	P33	(NC)	O	–	

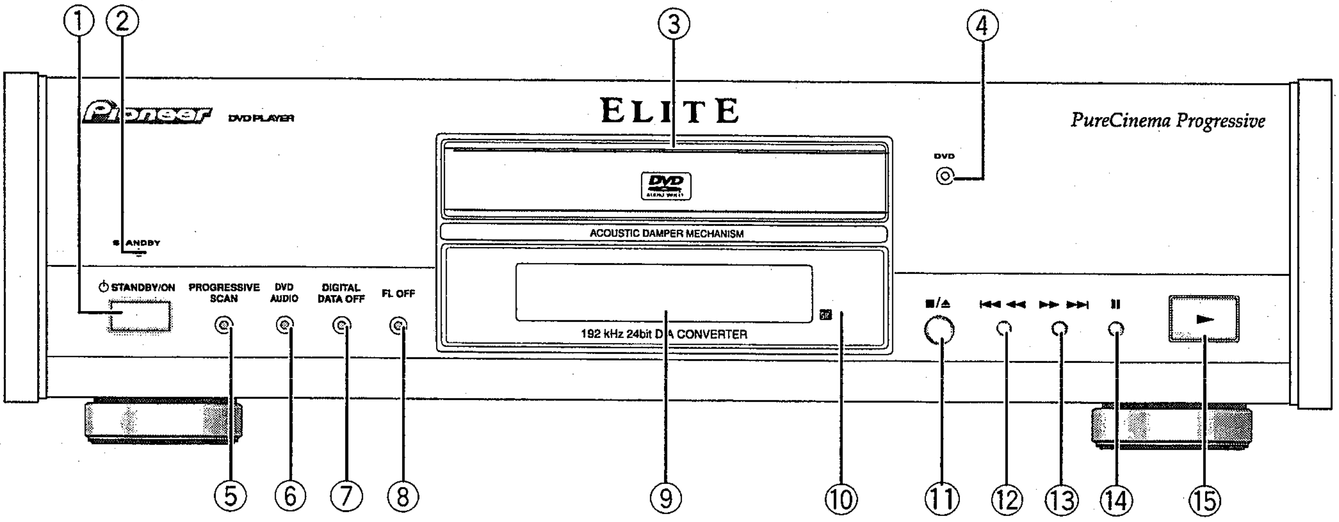
No.	Mark	Pin Name	I/O	Function	Active
41	P32	POWER ON	O	SW 5V ON/OFF	H: ON
42	P31	RESET OUT	O	System reset output	L: Reset
43	P30	(NC)	O	–	
44	P03	TES	I	Setting when system control IC is debugged	H: At debugging
45	P02	ON POWER	I	STBY/POWER ON switch at the time of FL control IC standing up	L: STBY
46	P01	LT	I	Communication handshaking line with system control IC	H: Communication permission
47	P00	SEL IR	I	Remote control signal input	
48	IC	IC	–	–	
49	P72	(NC)	O	–	
50	P71				
51	P70				
52	VDD	(5V)	–	–	
53	P127	P. ON LED	O	STANDBY LED ON/OFF	H: ON
54	P126	OEM	O	OEM model distinction input	H: OEM
55	P125	FL OFF LED	O	FL OFF LED ON/OFF	H: ON
56	P124	(NC)	O	–	
57	P123				
58	P122	P19	O	FL segment output	H: ON
59	P121	P18			
60	P120	P17			
61	P117	P16			
62	P116	P15			
63	P115	P14			
64	P114	P13			
65	P113	P12			
66	P112	P11			
67	P111	P10			
68	P110	P9			
69	P107	P8			
70	P106	P7			
71	VLOAD	-27V	–	Input for -27V	H: ON
72	P105	P6	O	FL segment output	H: ON
73	P104	P5			
74	P103	P4			
75	P102	P3			
76	P101	P2			
77	P100	P1			
78	P97	G10	O	FL timing output	H: ON
79	P96	G9			
80	P95	G8			

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Front Panel

• for DV-38A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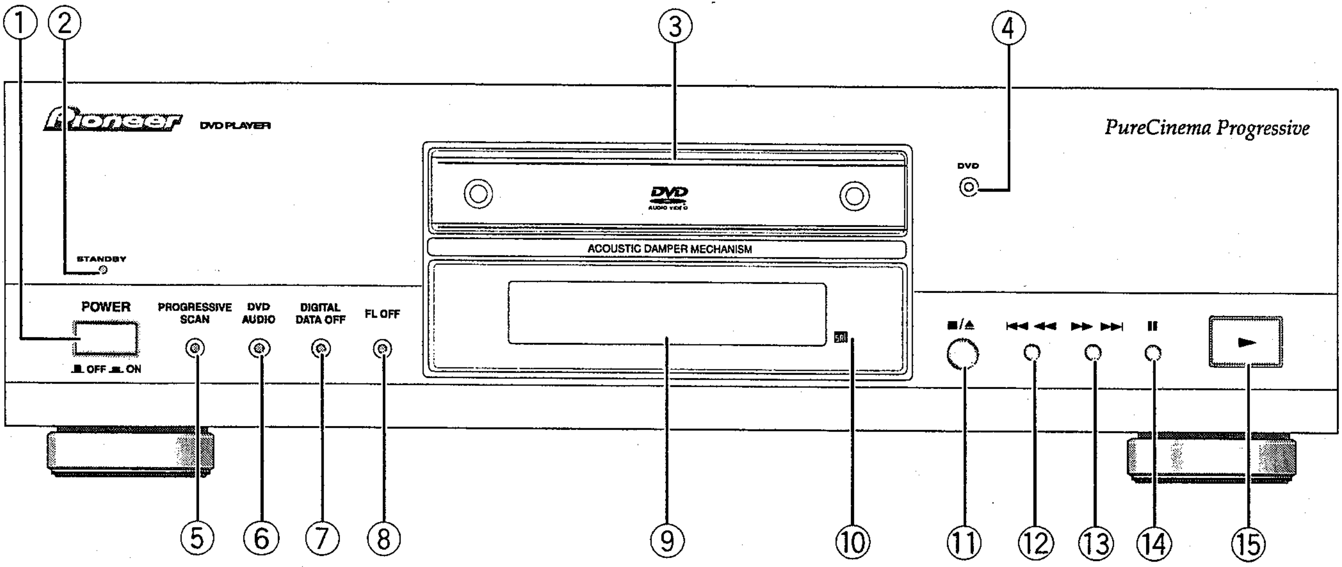
②
③
④
Pioneer DVD PLAYER
ELITE
PureCinema Progressive
DVD
ACOUSTIC DAMPER MECHANISM
STANDBY
⏻ STANDBY/ON
PROGRESSIVE SCAN
DVD AUDIO
DIGITAL DATA OFF
FL OFF
192 kHz 24bit D/A CONVERTER
■/⏏
⏮◀◀
▶▶⏭
⏸
▶
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮

• for DV-S88A, DV-S838A and DV-939A


①
②
③
④
Pioneer DVD PLAYER
PureCinema Progressive
DVD
ACOUSTIC DAMPER MECHANISM
STANDBY
POWER
▬ OFF ▬ ON
PROGRESSIVE SCAN
DVD AUDIO
DIGITAL DATA OFF
FL OFF
■/⏏
⏮◀◀
▶▶⏭
⏸
▶
⑤
⑥
⑦
⑧
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⑮

① **⏻ STANDBY/ON button (KU/CA and LB Types)**
Press to switch the player on or to put in standby.

POWER switch (WL, WL/RD and WY Types)
Press to switch the player on or off.

② **STANDBY indicator**
Lights when the player is in standby, using a minimum amount of power to maintain system settings.

③ **Disc tray**
When loading a disc, place discs in the disc tray with the label side facing up.

④ **DVD indicator**
Lights when a DVD disc is loaded.

⑤ **PROGRESSIVE SCAN indicator**
Lights when unit is outputing 525 line progressive scan (non-interlaced) video.

⑥ **DVD-AUDIO indicator**
Lights when a DVD-Audio playback.

⑦ **DIGITAL DATA OFF indicator**
Lights when unit is set to Digital Out Off .

⑧ **FL OFF indicator**
Lights when the fluorescent (FL) display is switched off.

⑨ **Display window**
Displays system information.

⑩ **Remote sensor**
Point the remote control toward the remote sensor to operate the player.

⑪ **■/⏏ (stop/open/close) button**
Press to open and close the disc tray.
Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it stopped. During playback, press twice to open the disc tray.

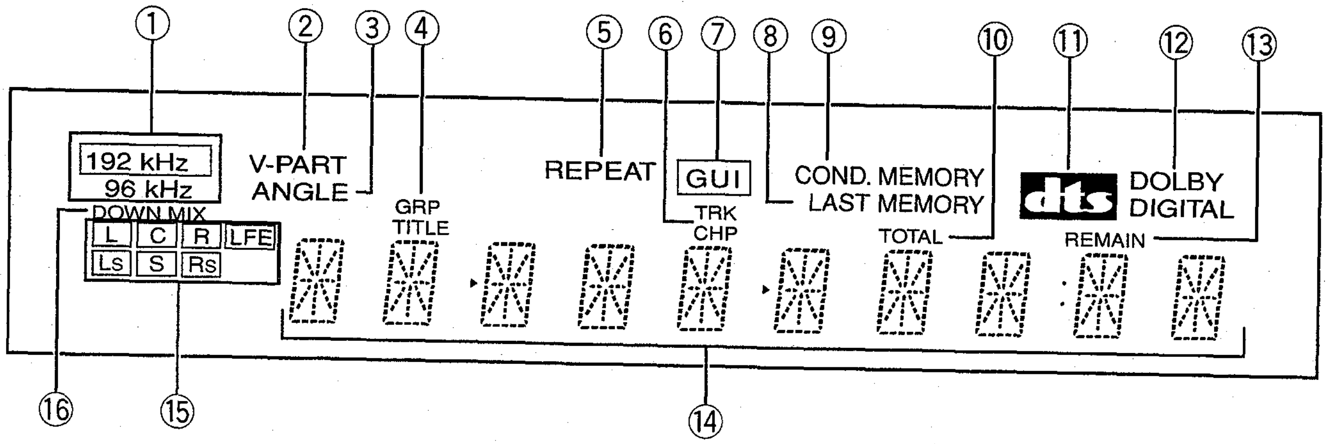
⑫ **⏮ ◀◀ (reverse) button**
Press to go back to previous title/chapters/tracks. Press and hold to perform reverse playback scanning.

⑬ **▶▶ ⏭ (forward) button**
Press to advance to title/chapters/tracks. Press and hold to perform fast-forward scanning.

⑭ **⏸ (pause) button**
Press during playback to pause. Press again to resume playback.

⑮ **▶ (play) button**
Press to start or resume playback.

Display Window



① **192 kHz/96 kHz indicator**
Indicates a DVD disc containing high-sampling rate (192 kHz/ 96 kHz) audio is playing.

② **V-PART indicator**
Indicates that video part of DVD discs playback.

③ **ANGLE indicator**
Indicates Multi-Angle playback is in progress.

④ **GRP/TITLE indicator**
Indicates a group/title number is being displayed.

⑤ **REPEAT indicator**
Indicates that the Repeat function is on and that the current title, chapter, or track is being repeated.

⑥ **TRK/CHP indicator**
Indicates a track/chapter number is being displayed.

⑦ **GUI indicator**
Indicates a player menu operation is being performed.

⑧ **LAST MEMORY indicator**
Indicates the Last Memory location is recorded in memory for the currently loaded DVD or Video CD.

⑨ **COND. MEMORY indicator**
Indicates that Condition Memory settings are memorized for the currently loaded DVD.

⑩ **TOTAL indicator**
Indicates that the disc in the player is stopped and **DISPLAY** has been pressed.

⑪ **DTS indicator**
Indicates DTS audio playback.

⑫ **DOLBY DIGITAL indicator**
Indicates Dolby Digital audio playback.

⑬ **REMAIN indicator**
Indicates that the remaining playback time of a title or chapter/ track is being displayed.

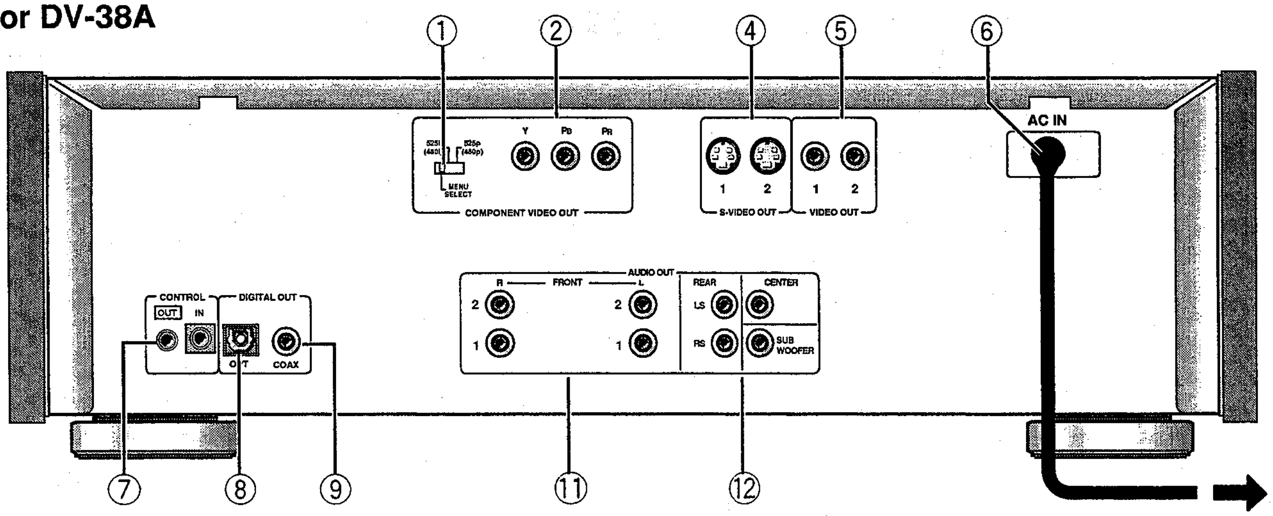
⑭ **Counter display**
Displays the playback mode, type of disc, title and chapter/ track numbers, playback time, etc.

⑮ **Program Format indicators**
During multichannel audio playback, indicate which channels are present in the soundtrack.
L : Left front *1*2, **C** : Center *1, **R** : Right front *1*2, **LS** : Left surround*1, **S** : Surround (mono) *1*2,
RS : Right surround*1,
LFE : The LFE (low frequency effects) channel indicator indicates 5.1 channel audio that contains a channel for low frequency sounds that are used by the sub woofer*1
*1 : Indicates DVD-Audio, Dolby Digital, DTS or MPEG playback.
*2 : Indicates Dolby Pro Logic playback.

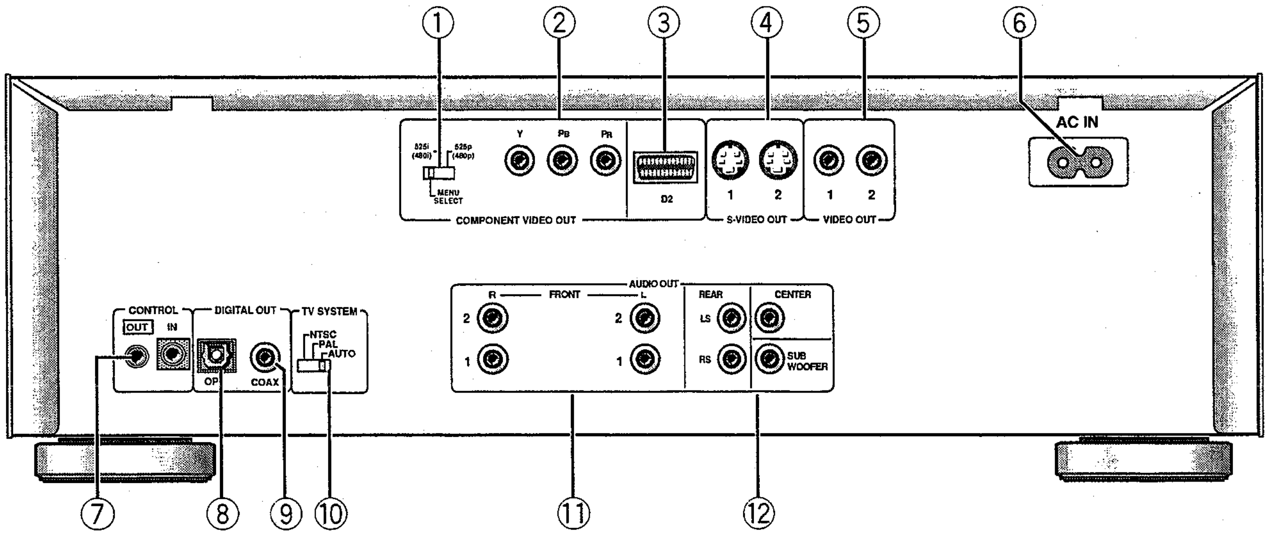
⑯ **DOWNMIX indicator**
During multichannel audio playback, indicates that the output signal has been "downmixed" from the original audio source. This is an automatic function performed by the player in order to present the most appropriate audio mix to the speakers present in your system.

Rear Panel

- **for DV-38A**


①
②
④
⑤
⑥
525i (480i)
525p (480p)
MENU SELECT
Y
PB
PR
COMPONENT VIDEO OUT
1
2
S-VIDEO OUT
VIDEO OUT
AC IN
AUDIO OUT
R
FRONT
L
REAR
CENTER
LS
RS
SUB WOOFER
CONTROL
OUT
IN
DIGITAL OUT
OPT
COAX
⑦
⑧
⑨
⑪
⑫

- **for DV-S88A and DV-S838A**


①
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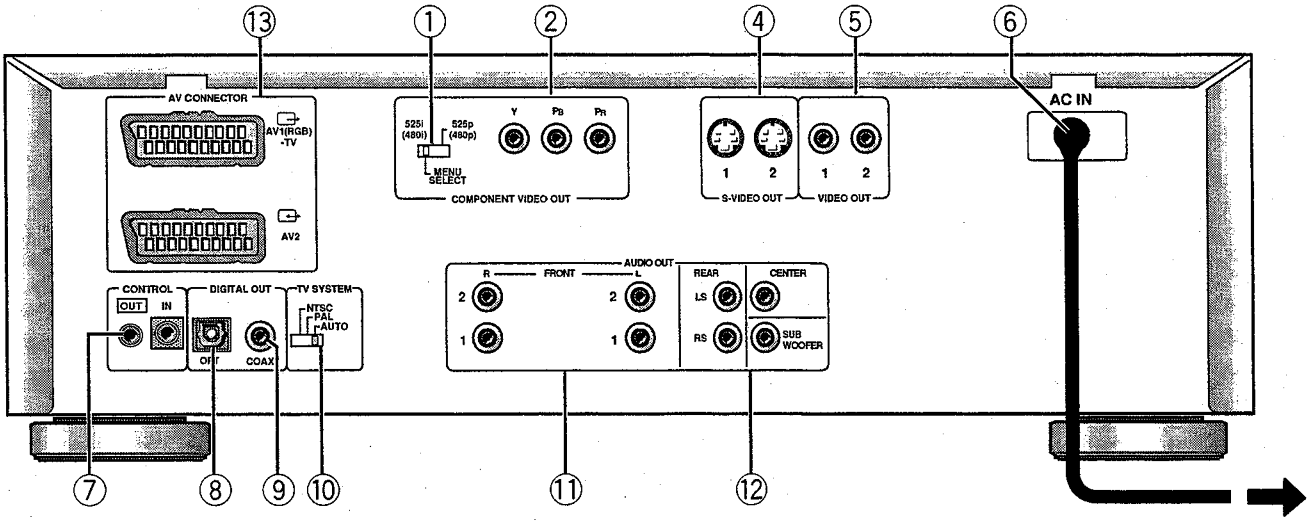
525i (480i)
525p (480p)
MENU SELECT
Y
PB
PR
D2
COMPONENT VIDEO OUT
1
2
S-VIDEO OUT
VIDEO OUT
AC IN
AUDIO OUT
R
FRONT
L
REAR
CENTER
LS
RS
SUB WOOFER
CONTROL
OUT
IN
DIGITAL OUT
OPT
COAX
TV SYSTEM
NTSC
PAL
AUTO
⑦
⑧
⑨
⑩
⑪
⑫

- **for DV-939A**


⑬
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AV CONNECTOR
AV1(RGB) -TV
AV2
525i (480i)
525p (480p)
MENU SELECT
Y
PB
PR
COMPONENT VIDEO OUT
1
2
S-VIDEO OUT
VIDEO OUT
AC IN
AUDIO OUT
R
FRONT
L
REAR
CENTER
LS
RS
SUB WOOFER
CONTROL
OUT
IN
DIGITAL OUT
OPT
COAX
TV SYSTEM
NTSC
PAL
AUTO
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① **COMPONENT VIDEO OUT switch**

You only need to set this switch if you're using an NTSC TV/monitor connected via the component video outputs of this player. This player can output NTSC video as a standard interlaced signal (the **525i(480i)** setting), or as a non-interlaced, or progressive scan signal (the **525p(480p)** setting).

If your TV/monitor is compatible with progressive scan video, set this switch to either **525p(480p)** or **MENU SELECT**. When set to **MENU SELECT**, you can use the on-screen Setup menu to switch between progressive and interlaced video output.

If your TV/monitor is not progressive scan compatible, you will not be able to see any picture if this player is set to output progressive scan video. In this case, set the switch to **525i(480i)** to restore the picture.

② **COMPONENT VIDEO OUT jacks (Interlace/Progressive-scan)**

If your TV or monitor has component video inputs, you can produce a higher quality picture on your TV or monitor by connecting to the component video outputs on this unit.

③ **D2 jack (LB, WL and WL/RD Types Only) (Interlace/Progressive-scan)**

If your TV or monitor has D video input, you can produce a higher quality picture on your TV or monitor by connecting to the D2 video output on this unit.

④ **S-VIDEO OUT jacks**

If your TV or monitor has an S-video input, clear picture reproduction is possible by connecting the player to your TV or monitor via the S-Video jack.

You can switch between **[S1]** and **[S2]** S-video output from the Setup menu.

⑤ **VIDEO OUT jacks**

Connect to the video input on a TV or monitor or AV amplifier or receiver with video input capability.

⑥ **Power cord (KU/CA and WY Types)**

Use to connect the power cord to the wall outlet.

⑥ **AC IN power cord connection terminal (LB, WL and WL/RD Types)**

Use to connect the power cord to the wall outlet.

⑦ **CONTROL IN/OUT jacks**

Use to connect this player to another component bearing the Pioneer SR mark. This lets you control this unit as though it were a component in a system. Player operations are then performed by pointing the remote control at the component that the player is connected to.

⑧ **DIGITAL OUT jack (optical (OPT))**

Use to output the digital audio signal recorded on discs. You can output the digital signal via either optical output jack to an AV amplifier or receiver.

⑨ **DIGITAL OUT jack (coaxial (COAX))**

Use to output the digital audio signal recorded on discs. You can output the digital signal via either coaxial output jack to an AV amplifier or receiver.

⑩ **TV SYSTEM switch* (WL, WL/RD and WY Types Only)**

Use to change the TV signal mode to either **PAL** or **NTSC** according to the type of TV and disc to be used. When the switch is in the **AUTO** position, the player outputs the format on the disc as is.

⑪ **AUDIO OUT FRONT jacks**

Use to output two-channel audio (analog) to the audio stereo inputs on a TV or stereo amplifier. If you are connecting to a receiver that has both digital and analog input jacks for DVD player connection, it may be beneficial to make both connections.

⑫ **AUDIO OUT (5.1 channel) jacks**

Use to output 6 discrete audio channels of decoded digital audio to a receiver or amplifier with discrete audio inputs.

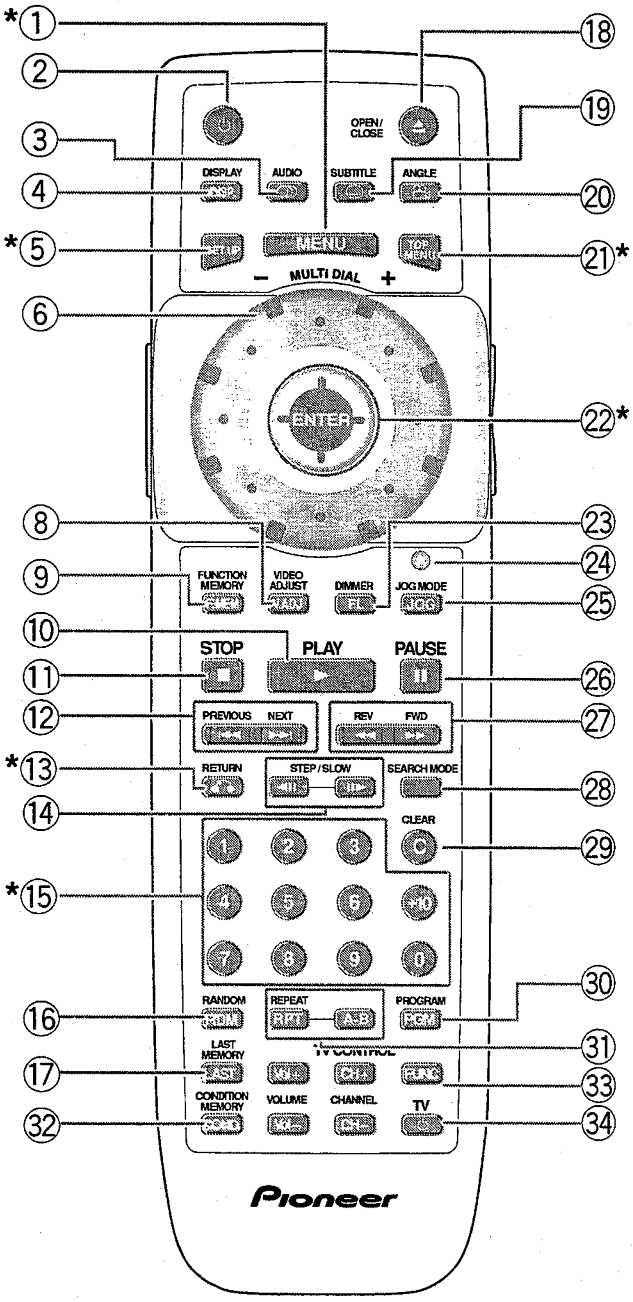
⑬ **Connecting SCART and S-Video cables**

SCART and S-Video cables will only plugin oneway, so make sure the plug is correctly lined up with the jack before inserting. Besure to fully insert for a good connection.

Note :The AV1 (RGB)-TV connector can output composite, S-Video or RGB component video; the AV2SCART connector only outputs composite video. If you connect just one TV, use the AV1 (RGB)-TV connector. You can select the type of video output by changing the Video Out setting in the Setup Menu.

Remote Control Unit

- for DV-38A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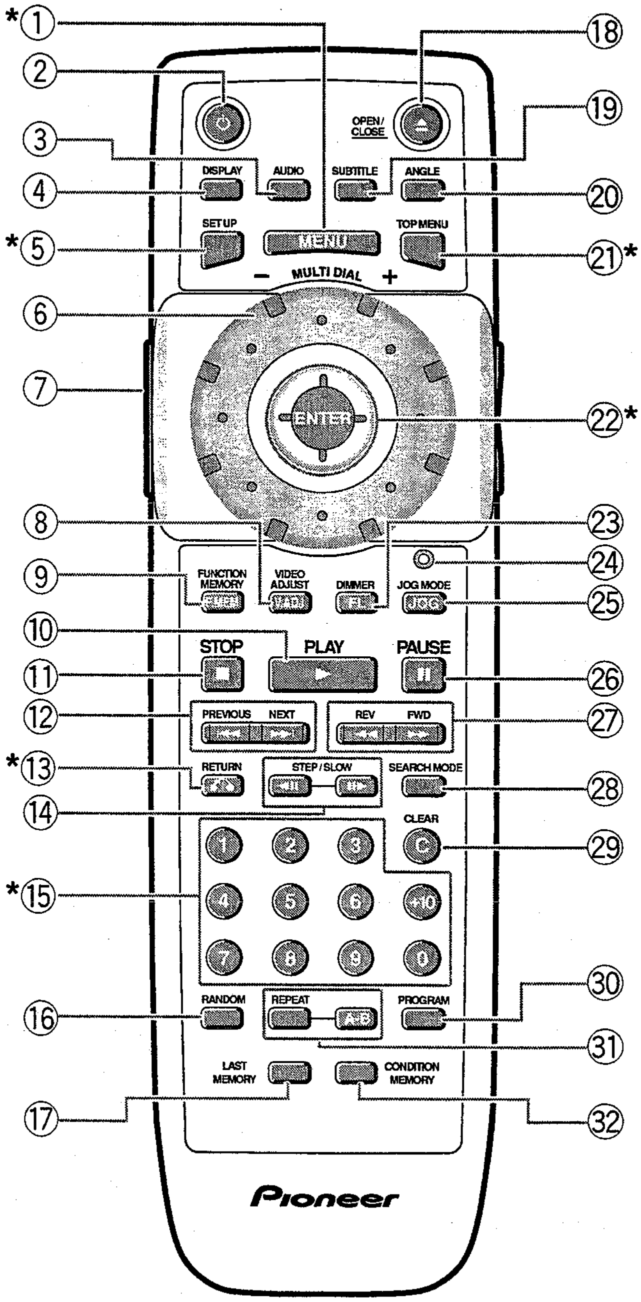
㉞
OPEN/ CLOSE
DISPLAY
AUDIO
SUBTITLE
ANGLE
SETUP
MENU
TOP MENU
− MULTI DIAL +
ENTER
FUNCTION MEMORY
VIDEO ADJUST
DIMMER
JOG MODE
STOP
PLAY
PAUSE
PREVIOUS
NEXT
REV
FWD
RETURN
STEP/SLOW
SEARCH MODE
CLEAR
1
2
3
C
4
5
6
+10
7
8
9
0
RANDOM
REPEAT
PROGRAM
RDM
RPT
A-B
PGM
LAST MEMORY
TV CONTROL
CONDITION MEMORY
VOLUME
CHANNEL
TV
VOL+
CH+
FUNC
VOL−
CH−
Pioneer

- for DV-S88A, DV-S838A and DV-939A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OPEN/ CLOSE
DISPLAY
AUDIO
SUBTITLE
ANGLE
SETUP
MENU
TOP MENU
− MULTI DIAL +
ENTER
FUNCTION MEMORY
VIDEO ADJUST
DIMMER
JOG MODE
STOP
PLAY
PAUSE
PREVIOUS
NEXT
REV
FWD
RETURN
STEP/SLOW
SEARCH MODE
CLEAR
1
2
3
C
4
5
6
+10
7
8
9
0
RANDOM
REPEAT
PROGRAM
A-B
LAST MEMORY
CONDITION MEMORY
Pioneer

(Buttons indicated with * are used for menu operation.)

① **MENU button***
Use to display or close the DVD-Video menu screen.

② **⏻ (Standby/On) button**
Press to switch the player on or to put in standby.

③ **AUDIO ◯)) button**
Press repeatedly to select one of the audio languages and/or audio formats programmed on a DVD.
For Video CD and CD, each press changes the audio output as follows.

→ Stereo → 1/L (Left) → 2/R (Right) ↩

④ **DISPLAY (DISP) button**
Press during playback to display statistical disc information. Press repeatedly to display different information.

⑤ **SETUP button***
Press when the player is in either play or stop mode to open and close the Setup screen.

⑥ **MULTI DIAL**
Use to control the rate of playback according to the speed at which **MULTI DIAL** is turned. When the Jog Mode is on, frame by frame scanning in both forword and reverse directions is possible.

⑦ **LIGHTING button (side panel)**
(LB, WL, WL/RD and WY OnlY)
Use to illuminate the main operation buttons on the remote control. When pressed, the buttons light for approximately 6 seconds. This function is convenient for locating the command buttons when the room is dark.

⑧ **VIDEO ADJUST (V.ADJ) button**
Various attributes of the video presentation can be adjusted to suit the program type or personal preferences. Press **VIDEO ADJUST (V.ADJ)** to display the on-screen options.

⑨ **FUNCTION MEMORY (F.MEM) button**
Press to incorporate a menu item into a shortcut list that is stored in memory and can be called up at any time.

⑩ **PLAY ► button**
Press to start disc playback.

⑪ **STOP ■ button**
Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it was stopped. Pressing twice causes the disc to return to the beginning of the disc when playback starts again.

⑫ **PREVIOUS I◄◄/NEXT ►►I buttons**
During playback, press **PREVIOUS I◄◄** to go back to a previous chapter/track and **NEXT ►►I** to advance to the next chapter/track .

⑬ **RETURN ↶ button***
Use to go one menu back (current settings are maintained). Use **RETURN ↶** when you do not want to change the option setting in a menu.

⑭ **STEP/SLOW ◄II/II► buttons**
Press **STEP/SLOW II►** during playback to view slow playback. In pause mode, press **STEP/SLOW II►** to advance DVDs and Video CDs frame by frame and **STEP/SLOW ◄II** to back up a DVD a few frames at a time.

⑮ **Number buttons (1-9, 0, +10)***
Use to perform direct title/group and chapter/track searches, and to input numerical values.

⑯ **RANDOM button**
Press to play titles/groups/chapters/tracks in random order.

⑰ **LAST MEMORY button**
You can resume DVD-Video or Video CD playback from the point you last watched even if the disc is removed from the player. Press **LAST MEMORY** during playback to set a Last Memory point. When you want to resume playback of that disc, press **LAST MEMORY** in the stop mode and playback starts from the memorized point. Last Memory locations can be stored for up to 5 DVDs and 1 Video CD.

⑱ **OPEN/CLOSE ▲ button**
Press to open or close the disc tray.

⑲ **SUBTITLE [....] button**
Press repeatedly to select one of the subtitle languages programmed on a DVD or to turn the subtitles off.

⑳ **ANGLE 🎥 button**
Some DVDs are recorded with various camera angle playback options. Press **ANGLE** repeatedly to display different camera angles

㉑ **TOP MENU button***
Press to call up the top menu programmed on the DVD. Depending on the DVD, the top menu may be identical to the DVD menu.

㉒ **Cursor control joystick***
Use to move the cursor through the options on menu screens and to change settings.
ENTER button*
Press to implement settings selected with the cursor control joystick or to set items highlighted in a menu.

㉓ **DIMMER (FL) button**

Press to change the brightness of the FL display and DVD indicator in four steps: maximum brightness, medium brightness, minimum brightness, and off. When the FL display is turned off, the **FL OFF** indicator on the front panel lights.

㉔ **JOG MODE indicator**

Lights red when the player is in the Jog Mode.

㉕ **JOG MODE (JOG) button**

Press to put the player in the Jog Mode. When this mode is on, rotate **MULTI DIAL** clockwise to scan frame by frame in the forword direction and counterclockwise to scan frame by frame in the reverse direction.

㉖ **PAUSE II button**

Press to pause playback of a disc. Press again to resume playback.

㉗ **REV ◀◀/FWD ▶▶ (fast reverse/ fast forward) buttons**

During playback of DVD and Video CD, press **FWD ▶▶** to perform fast forward scanning. Press **REV ◀◀** to perform fast reverse scanning of DVD and Video CD. When a CD is loaded, audio scanning is performed.

㉘ **SEARCH MODE button**

Press to perform a title/group, chapter/track, elapsed time search or time & frame search.

㉙ **CLEAR button**

Works in conjunction with a number of player functions. Use to cancel repeat and random playback, and to edit programs.

㉚ **PROGRAM button**

You can program titles, groups, chapters, or tracks to play back in a desired order. Programs can be a maximum of 24 steps. Additionally, DVD-Video programs for up to 24 discs can be stored in the player's memory for future use.

㉛ **REPEAT button**

Press once to repeat playback of current chapter/track. Press twice to repeat playback of current title/group.

A-B button

Press at the beginning and end of the section you want to repeat or to mark a location you want to return to.

㉜ **CONDITION MEMORY button**

You can store in memory the settings for up to 15 DVD-Videos. Press **CONDITION MEMORY** during DVD-Video playback to memorize the settings.

㉝ **TV CONTROL buttons (KU/CA Type Only)**

FUNC: Press FUNC to select the TV for remote control operation.

CHANNEL: Use to select TV channel.

VOLUME: Use to adjust the volume.

㉞ **⏻ TV button (KU/CA Type Only)**

Press TV to turn the TV's power on or put in standby.

Setting up the Remote Control to TV.

1. **Input the Manufacturer code.**

   While holiding down the **CLEAR** button, input the **two digit** code from the table below that corresponds to the make of your TV.

   For example, If you have a Pioneer TV, press and hold **CLEAR**, then press **0**, **0** on the remote control.

2. **Confirm that the TV is responding to the programmed code.**

   On the remote, press the **⏻ TV** button. If the TV swithches on (or into standby if it was on previously), then you have the correct code.

   If nothing happens when you press the **⏻ TV** button, start again from step 1 using a different code.

   - Some Manufacturers have several codes. Try each one until you find the one that works.

Preset Code List

Code	Manufacturer	Code	Manufacturer
00	PIONEER 1	18	RCA 5
01	RCA 1	19	SHARP 1
02	SHARP 3	20	ZENITH 2
03	ZENITH 1	21	SANYO 1
04	SONY	22	PANASONIC 2
05	TOSHIBA 1	23	GOLDSTAR 2
06	HITACHI 1	24	HITACHI 2
07	PHILIPS	25	HITACHI 3
08	PANASONIC 1	26	TOSHIBA 2
09	MITSUBISHI	27	SHARP 2
10	GOLDSTAR 1	28	GE 2
11	GE 1	29	MAGNAVOX 2
12	MAGNAVOX 1	30	TOSHIBA 3
13	JVC 1	31	HITACHI 4
14	SANYO 2	32	JVC 2
15	RCA 2	33	FUJITSU
16	RCA 3	34	PIONEER 2
17	RCA 4	35	GRANDIENTE

8.2 SPECIFICATIONS

■ DV-38A

General

System	DVD system and Compact Disc digital audio system
Power requirements	AC 120 V, 60 Hz
Power consumption	28 W
Power consumption in standby mode	less than 1 W
Weight	9.9 kg (21 lb 14 oz)
Dimensions (Not including protruding cables, etc.)	460 (W) x 370 (D) x 131 (H) mm (18 2/16 (W) x 14 10/16 (D) x 5 3/16(W) in.)
Operating temperature	+5°C to +35°C (+41°F to +96°F)
Operating humidity	5% to 85% (no condensation)

S-Video output (2 individual outputs)

Y (luminance) - Output level	1 Vp-p (75 Ω)
C (color) - Output level	286 mVp-p (75 Ω)
Jacks	S-VIDEO jack

Video output (2 individual outputs)

Output level	1 Vp-p (75 Ω)
Jacks	RCA jack

Component video output

(Y, PB, PR)

Output level	Y: 1.0 Vp-p (75 Ω) PB, PR: 0.7 Vp-p (75 Ω)
Jacks	RCA jacks

Audio output (2 individual outputs)

Output level

During audio output	200 mVrms (1 kHz, –20 dB)
Number of channels	2
Jacks	RCA jacks

Audio output (5.1 Channel)

Output level

During audio output	200 mVrms (1 kHz, –20 dB)
Number of channels	6
Jacks	RCA jacks

Digital audio characteristics

Frequency response	4 Hz to 88 kHz (DVD fs: 192 kHz)
S/N ratio	115 dB
Dynamic range	110 dB
Total harmonic distortion	0.001%
Wow and flutter	Limit of measurement (±0.001% W. PEAK) or lower

Digital output

Optical digital output	Optical digital jack
Coaxial digital output	RCA jack

Other terminals

CONTROL IN	Minijack (3.5 ø)
CONTROL OUT	Minijack (3.5 ø)

Accessories

Audio cord	1
Video cord	1
Remote control unit	1
AA (R6P) dry cell batteries	2
Operating Instructions	1

Note

The specifications and design of this product are subject to change without notice, due to improvement.

DV-S88A and DV-S838A

General

System	DVD system and Compact Disc digital audio system
Power requirements	
DV-S88A	AC 110 V, 60 Hz
DV-S838A	AC 220-240 V, 50/60 Hz
Power consumption	
DV-S88A	29 W
DV-S838A	31 W
Power consumption in standby mode	less than 1 W
Weight	9.0 kg
Dimensions	420 (W) x 371 (D) x 130 (H) mm (Not including protruding cables, etc.)
Operating temperature	+5°C to +35°C
Operating humidity	5% to 85% (no condensation)

S-Video output (2 individual outputs)

Y (luminance) - Output level	1 Vp-p (75 Ω)
C (color) - Output level	286 mVp-p (75 Ω)
Jacks	S-VIDEO jack

Video output (2 individual outputs)

Output level	1 Vp-p (75 Ω)
Jacks	RCA jack

Component video output

(Y, P_B, P_R)

Output level	Y: 1.0 Vp-p (75 Ω) P_B, P_R: 0.7 Vp-p (75 Ω)
Jacks	RCA jack

D2 video output

Output level	Y: 1.0 Vp-p (75 Ω) P_B, P_R: 0.7 Vp-p (75 Ω)
Jacks	D terminal

Audio output (2 individual outputs)

Output level	
During audio output	200 mVrms (1 kHz, –20 dB)
Number of channels	2
Jacks	RCA jack

Audio output (5.1 Channel)

Output level	
During audio output	200 mVrms (1 kHz, –20 dB)
Number of channels	6
Jacks	RCA jack

Digital audio characteristics

Frequency response	4 Hz to 48 kHz (DVD fs: 192 kHz)
S/N ratio	more than 115 dB
Dynamic range	more than 110 dB
Total harmonic distortion	0.001%
Wow and flutter	Limit of measurement (±0.001% W. PEAK) or lower

Digital output

Optical digital output	Optical digital jack
Coaxial digital output	RCA jack

Other terminals

CONTROL IN	Minijack (3.5 ø)
CONTROL OUT	Minijack (3.5 ø)

Accessories

Audio cord	1
Video cord	1
Power cord	1
Remote control unit	1
AA (R6P) dry cell batteries	2
Operating Instructions	1

Note

The specifications and design of this product are subject to change without notice, due to improvement.

■ DV-939A

General

System	DVD system and Compact Disc digital audio system
Power requirements	220-240 V, 50/60 Hz
Power consumption	32 W
Power consumption in standby mode	less than 1 W
Weight	9.2 kg
Dimensions	420 (W) x 371 (D) x 130 (H) mm
Operating temperature	+5°C to +35°C
Operating humidity	5% to 85% (no condensation)

S-Video output (2 individual outputs)

Y (luminance) - Output level	1 Vp-p (75 Ω)
C (color) - Output level	286 mVp-p (75 Ω)
Jacks	S-VIDEO jack

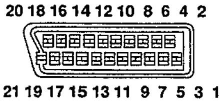
Video output (2 individual outputs)

Output level	1 Vp-p (75 Ω)
Jacks	RCA jack

21-pin connector assignment

AV connector input/output	21-pin connector

This connector provides the video and audio signals for connection to a compatible color TV or monitor.



PIN no.

1	Audio 2/R out	3	Audio 1/L out
4	GND	7	B* out
8	Status	11	G* out
15	R* or C* out	17	GND
19	Video out or Y* out	21	GND

* AV1(RGB)-TV is output
AV2 is not output

Component video output

Output level Y	1 Vp-p (75Ω)
Output PB, PR	0.7 Vp-p (75Ω)

Audio output (2 pairs)

Output level

During audio output	200 mVrms (1 kHz, –20 dB)
Number of channels	2
Jacks	RCA jack

Audio output (multi-channel / C, SW, LS, RS)

Output level

During audio output	200 mVrms (1 kHz, –20 dB)
Number of channels	4
Jacks	RCA jack

Digital audio characteristics

Frequency response	4 Hz to 44 kHz (DVD fs: 96 kHz)
Frequency response	4 Hz to 88 kHz (DVD-Audio fs: 192 kHz)
S/N ratio	115 dB
Dynamic range	more than 110 dB
Total harmonic distortion	0.001 %
Wow and flutter	Limit of measurement (±0.001% W. PEAK) or lower

Digital output

Optical digital output	Optical digital jack
Coaxial digital output	RCA jack

Other terminals

Control in	Minijack (3.5 ø)
Control out	Minijack (3.5 ø)

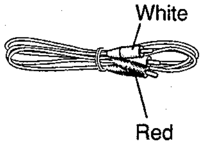
Accessories

Audio cable	1
Video cable	1
Remote control unit	1
"AA" size (R6P) batteries	2
Operating Instructions	1

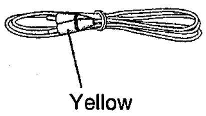
Note
The specifications and design of this product are subject to change without notice, due to improvement.

● Accessories

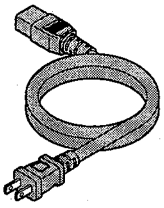
Audio Cord (L = 1.5m)
: VDE1033



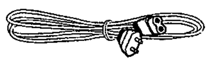
Video Cord (L = 1.5m)
: VDE1034



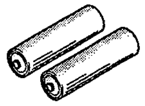
Power Cord (DV-S88A only)
: VDG1081



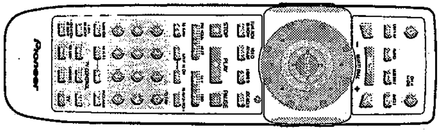
Power Cord
(DV-S838A only)
: ADG1127



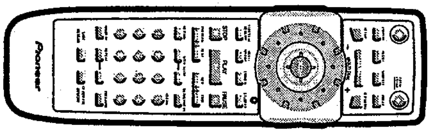
Dry Cell Battery (R6P, AA)



Remote Control Unit : VXX2714 (for DV-38A)



Remote Control Unit : VXX2628 (for DV-S88A, DV-S838A and DV-939A)



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